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Contents.

Page.

Agricultural Progress. Interesting Facts and Figures—Agricultural Department—Agricultural Progress—Trade with Asia—Agricultural Education 99

Artesian Bores. A Wonderful Asset 76

Child Life. Big Facts for Little Folks 80

Forest Wealth. Her Commercial and Fancy Timbers—Some Striking Figures—A Queensland Forest—A Mighty Cedar—Other Varieties of Timber—Timber for Furniture Making—Timber for Railway Sleepers—A Visit to a Sawmill—How Pine is Treated—The Growth of the Industry 69

Industrial Story. Three Great Primary Industries—No. 1 Farming—Systems of Tenure—How to Select—Crops and Production—No. 2 Dairying—No. 3 Fruit Production 11

Mineral Fields. Golden Days, Past and Present—Underground Wealth—Does Mining Pay?—Some Eloquent Figures—The Principal Fields—The Baser Metals—Tin, Copper, and Coal—Queensland's Earliest Diggings—The Canoona Rush—Had They but Known?—A Poor Man's Field—An Early Diggings—A Vast Canvas Town—An Old Digger's Story—Mount Morgan—The Mount To-day—The Dee Rush—Gympie and Charters Towers—Copper, Tin, and Coal—The State's Tin Deposits—Walsh and Tinaroo Mineral Fields—Other Industrial Minerals—Queensland's Coal Deposits 44

Outdoor Life in Queensland. 90

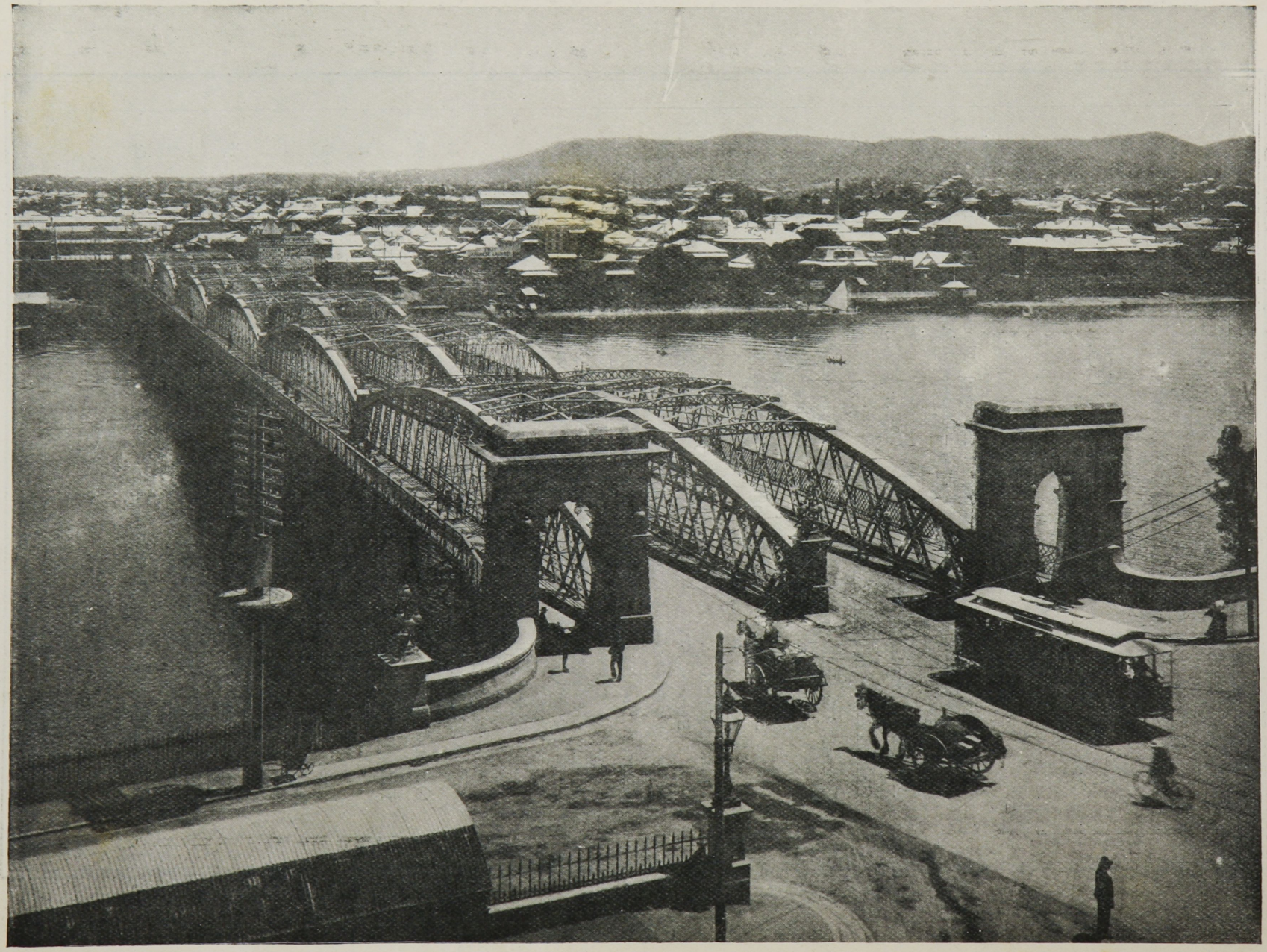
Pastoral Industry. Queensland's Wealth in Wool, Mutton, and Beef—How Grazing Country is held 28

Sugar Areas. A Profitable Industry 37

The State a Helper. How Settlers are Educated—Lands Inquiry Office—Railway Concessions—The "Sinews of War"—Land for Settlement—Agricultural Knowledge for Settlers—Training the Young Men—Agricultural Experts and their Work 56

What it was. What it is. What it will be. Then and Now—The Official Story—An Abiding Affection 5

What Successful Settlers think of "Sunny Queensland." .. 64



VICTORIA BRIDGE FROM THE TREASURY BUILDINGS, BRISBANE.

Britain's Fairest Daughter:

QUEENSLAND.

What it was—what it is—what it will be.

By F. C. Woosley.

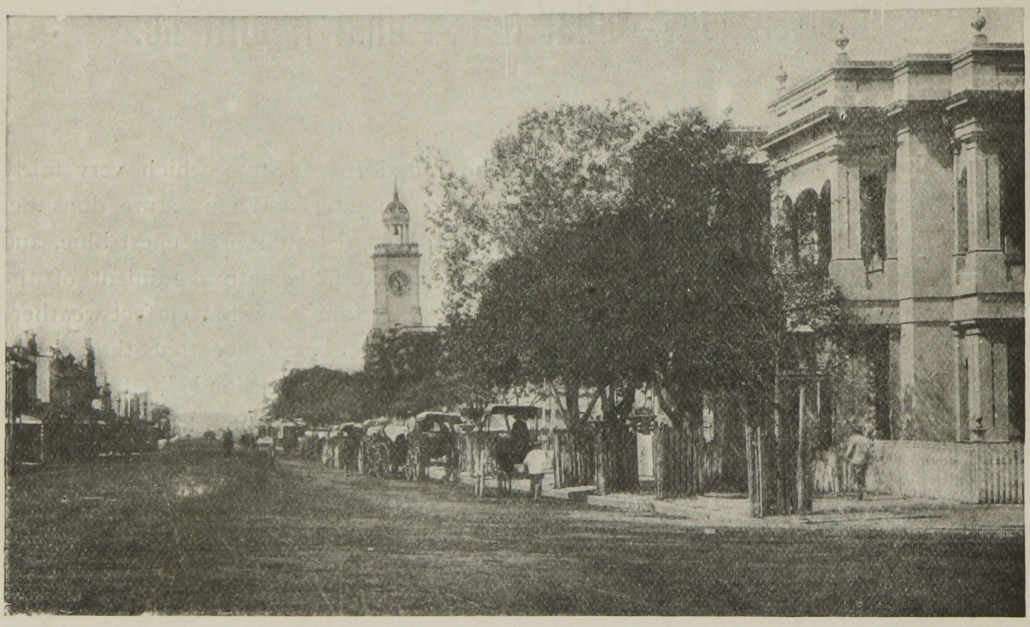
QUEENSLAND! Could fairer name be found for a State which very fairly may claim to be Britain's most favoured daughter? When nature dons her happiest mood; when the sky is one unbroken stretch of deepest blue, and soft zephyrs tickle the golden wheatfields and the natural raiment of the untilled plains into wavelets of laughter, do we not exclaim: "What perfect weather! What Queen's weather!" Then is it not a happy circumstance that the North-eastern portion of Australia is known to the world as "Queensland?" Let us first turn to the past.

Queensland is an infant. It is too young to be rich in national traditions; but it has what is of greater importance perhaps—a record of industrial development which is not excelled by the history of any other country in the world. This is no idle boast. One hundred years ago Australia was a dark continent—an unknown land practically. To-day hundreds of cities and towns are nestled on its waterways, and its rich grazing lands are recognised as one of the best, if not the very best, wool and beef producing areas of the world. The hand of industry is laying hold of the whole continent. And when this mistress of the modern world has fulfilled her task, Australia will rank as one of the wealthiest countries of her time. And of this Australia, the State of Queensland is the fairest jewel.

Some months ago the writer had an opportunity of visiting what is undoubtedly one of the most fertile districts in Queensland—the Upper Burnett. The district was settled not long after the far-famed Darling Downs, and, notwithstanding its undoubted fertility, is still held for grazing purposes. Given railway facilities, the district would be one net work of smiling homesteads. In this connection it is pleasing to note that a succession of surpluses has induced the Government to frame a vigorous works policy, and under this policy it is not unlikely that millions of acres will be made available for close settlement. But this is a digression.

The Northern Burnett is still largely a lone land. On one large station property there stands a weather-worn and rain-stained tomb-stone. The writer made his pilgrimage to this silent reminder of the past early in the morning. The sun was just rising over the hills to the eastward, and as its first soft rays touched the light-coloured bark of the giant gums, a strange and almost weird peacefulness blended

with the rural scene. But it was the little grave-stone which finally rivetted the attention. It spoke of the sudden end of one who had performed valuable pioneering work for the State—of one who had gone up into the wilderness to bring the virgin land into a condition of usefulness. And after fulfilling this self-imposed task, his remains were given a resting place in the solitude of the bush. Who is the greater hero? The man, who, in the fever heat of battle, wins glory and a V.C., or the early pioneer of a new land who takes his life in his hand and pierces the loneliness of the bush, and there, far removed from the life and activity of the city, commences to lay the foundation of a great industry? Let readers answer the



question for themselves. But the silent tombstone prompted other thoughts. The date it bore was 1853. Three years before, Moreton Bay, as Queensland was then known, was separated from New South Wales! Here was food for an interesting reverie. What was Queensland in those early days? What marvellous progress had it made since? In that little reverie had to be crowded the history of the State.

THEN AND NOW.

Was it strange that thoughts wandered first to the capital? Brisbane! Why, it was but an outpost of Sydney. A small village nestling on a broad but undredged stream. In those days there was no certainty that Brisbane would be the metropolis of the independent State yet unborn. Ipswich, another village situated many miles up the river, was a strenuous rival. But the rivalry ended in favour of Brisbane, and to-day Brisbane is practically the third city of the Australian Commonwealth. Magnificent buildings, palatial residences and wood-paved streets, and a commercial bustle which speaks of a well-rooted and permanent prosperity. Such is the Queensland metropolis to-day. And what of the broad stream from which the

city takes its name? Forty years ago a small ten-ton lugger could not cross the river bar at low water. To-day the largest vessels trading to the Southern hemisphere are brought right up the river to the city wharves. It is no unusual thing to see four or five 6,000 or 7,000 ton steamers discharging or loading at the city wharves at the same time, and when the present scheme of harbour improvement is completed, the port will be able to accommodate the largest ocean greyhounds of the world. That it has been found necessary to so improve the port of Brisbane is eloquent testimony to the rapid expansion which has taken place in the State's import and export trade. "Tell me your trade figures, and I will tell you your prosperity," an influential visitor from the old country once said to the writer. After being provided with the required information, the visitor referred to remarked: "Yes; you have a great country." The tribute was no empty eulogy; it was the sincere opinion of a man who had inquired.

THE OFFICIAL STORY.

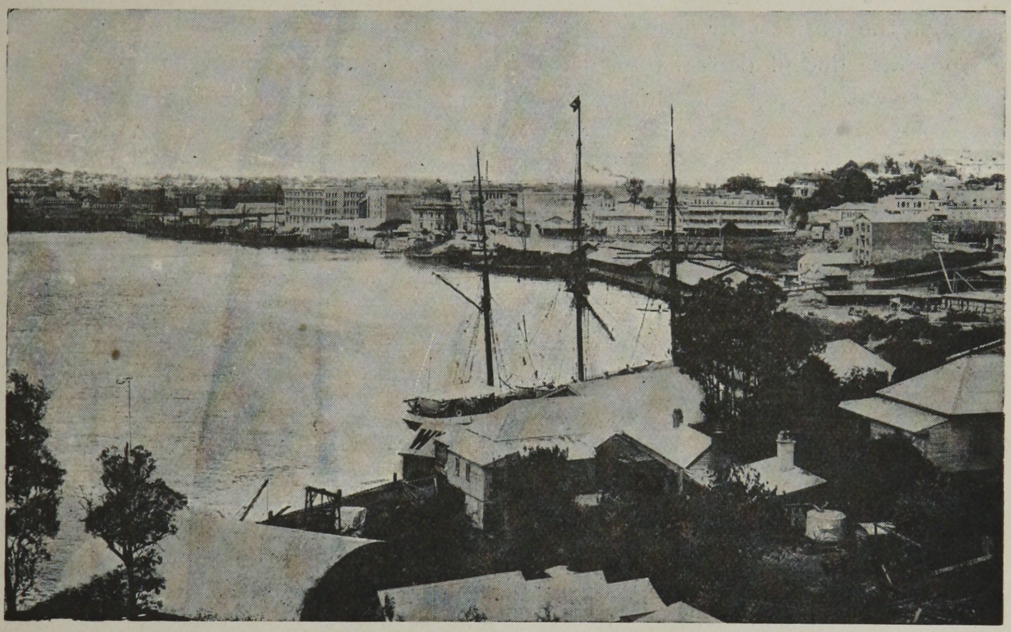
But what story has official statistics to tell of the period which has elapsed since that old pioneer was placed at rest under the shade of those Northern Burnett gums? Perhaps it would be better to compare the present with 1860, the year following that in which Queensland secured her independence. The first settlers in the territory were squatters—men who, attracted by the glowing account given by the early explorers of the rich pasture lands, travelled sheep and cattle overland from New South Wales. That first industry has proved Queensland's greatest industry. And how have the flocks and herds grown? In 1860 the livestock of Queensland was made up of 23,504 horses, 432,890 cattle, and 3,166,802 sheep. These figures grew until the State possessed over 20,000,000 sheep, 7,000,000 cattle, and not far short of half a million horses. And notwithstanding this increase, there is still room for almost unlimited expansion. One has to study the export figures to understand the wealth of wool and beef and mutton these flocks and herds which are scattered over the North-eastern portion of Australia represent. Verily is Queensland a "great country." Then as regards mineral production during those forty odd years. From creek beds and gullies, and from the bowels of the earth, gold and other minerals have been won of a total value of over eighty million pounds. Surely this is a creditable achievement? And what of that best of all assets—the people? In 1860, Queensland was a self-governing community of 28,000 souls. To-day the territory holds between five and six hundred thousand persons This is certainly a very satisfactory increase, but the resources of the State are such as to demand a very much larger population. If the world at large knew Queensland, it would not be long before population would be counted by the million, rather than by the thousand. How best can Queensland's immense territory be brought home to the minds of those across the sea? Imagine a map of Queensland—say sixteen feet by fourteen. In the south-east corner a little dot denotes the capital. A child's hand placed flat over that small mark, will cover more than half the present population of the State. And if three times the population of the whole State were crowded into the space covered by that little hand, there would be no undesirable



A GLIMPSE OF TOWNSVILLE—THE PRINCIPAL PORT IN NORTHERN QUEENSLAND.

crowding. Queensland is great in area as she is great in resources. That is saying much. She is greater in resources than in area. That is saying more.

There is an eloquent story to be told by the statistics issued by the Department of Public Instruction. Incidently, it may be remarked that in Queensland, education is free. The child of the poorest settler may, if he is capable of passing the required examination, secure the highest education Australia offers. Primary education is both free and compulsory. In this respect the State fully recognises its responsibilities to the young. But to come to figures. In 1860 there were 41 state schools in Queensland, attending which were 1890 scholars. There are now considerably over 12,000 schools in which free education is provided for not far short of 100,000 scholars.



VIEW OF BRISBANE FROM BOWEN TERRACE.

"But," asks an earnest inquirer, "has all this progress and production benefited your workers to any extent?" It is a very pertinent question. Perhaps the position of the working classes can be gauged in no better way than by a study of the figures relating to Government Savings Bank deposits. In Queensland, deposits are limited to £200, so that the Government Savings Bank is practically the people's bank. Over eighty thousand persons have money deposited, and the deposits represent savings aggregating over four million pounds. Remembering that Queensland is an infant and but partly developed country, it must be admitted that these figures indicate a very happy condition of affairs.

AN ABIDING AFFECTION.

Reference has been made to the abiding affection for the old land which has in Queensland passed from father to son, and on again to son's son. Perhaps no people in the world are greater worshippers at the shrine of liberty and freedom

than Queenslanders. There is in a land of such magnificent distances, that elbow room which the human race so much loves. There is no overcrowding in the cities; in the country there are many acres to the person. These conditions which do not exist in older countries of the world are leaving their imprint on the young nation growing up on that "Mighty isle which breaks the waters of the Southern Seas." This imprint is seen in the independence and initiative, which are the two great characteristics of Queenslanders. The farmers from the old land and the continent, who settled on the land in Queensland a score or more years ago, have around them families of sturdy sons and daughters.

Tourists who visit Australia, and especially those who include Queensland in their itinerary, are invariably impressed with the freedom enjoyed by the working classes. "Jack's as good as his master," is often heard in Australia. Frequently, the warmest friendship exists between employer and employee, and there is no severe line of demarkation between the employing and working classes. This freedom is evolving a type which might yet stand the old land in good stead.



Queensland's Industrial Story.

Three Great Primary Industries.

FARM, DAIRY, AND ORCHARD.

(By R. S. Taylor).

No. 1.—FARMING.

AN abundance of fertile, cheap, and easily acquired land, genial and healthful climatic conditions, a great range of payable crops, and the markets of Australia, the East, and of Great Britain, are some of the attractions which Queensland offers to the Agriculturist. There are others, such as the existence of a Government warmly solicitous of the welfare of the farmer, and the citizenship of a progressive and prosperous State, but those just enumerated, are in themselves no unsubstantial guarantees of success. The farmer in Queensland does not depend on the help of the Government to enable him to make his way, for thousands starting with practically nothing, but a strong pair of arms, have proved that, but his outlook is all the brighter, and the work of pioneering is all the lighter, when he knows that the Government is sympathetic and helpful. If he does not need assistance, all the better, the road to competence is all the shorter, and the satisfaction of success all the greater. All the countries which in these days are busy appraising their own wares, vie in helping the agriculturist, because they recognise that the farmer is the foundation of all prosperity. They are also anxious to persuade him that Codlin is their friend, not Short. Possibly Queensland may be desirous of exercising similar blandishments, but there are solid practical advantages within her gift which render such a course unnecessary. No one who wishes to start life in a new country can ask for more than an unlimited choice of rich land, the easiest possible terms of acquisition, and unrestricted markets. Those conditions can be offered by Queensland with a freer hand than any other of the Australian States, because the bulk of the lands still belong to the State, and because Queensland is nearer to the great markets of the East. The latter consideration is of importance, because, until the population of Australia greatly increases, the production must necessarily exceed the home consumption, and the teeming nations of the East afford profitable markets for an ever-increasing proportion of the surplus. South Africa, Europe, and Great Britain easily absorb all the rest. The problem Queensland is trying to solve is less one of markets, than of providing population



RUTHVEN STREET, TOOWOOMBA (Toowoomba is the metropolis of one of the richest agricultural districts in Queensland).

to fill up her great unoccupied territory, and she is endeavouring to face the position by showing in a bona-fide way what a magnificent field she has to offer to the industrious and the enterprising. She does not ask them to spend months of the year in profitless waiting until the earth exchanges its heavy mantle of snow, for the bright-hued garb of spring. There is no long cold winter. The invitation is to a land of eternal sunshine, where snow is unknown, and where the course of production in some form or other goes on all the year round—a land whose winter climate has no rival in the whole world. The misfortune is, and has been, that this has not been adequately recognised, but with better knowledge is coming greater appreciation. But the country if it is a goodly one, is vast in area, and capable of supporting millions, and at present, though it is pulsating with life and energy, and brave endeavour to rise to the dignity of its destiny, it possesses less than three-quarters of a million. Yet so varied are its conditions, so wide the range of its productions, that there is not a crop grown in any part of the world cereal or fruit, which will not flourish in some portion of the territory. From an agricultural point of view it occupies an asbolutely unique position. Situated within the latitude 10 deg. to 28 deg. South, and longtitude 138 deg. to 154 deg., and possessing great table-lands which rise to an altitude of over 3,000 feet, and a vast area of soil of extraordinary productive capabilities, it combines the advantages of the temperate, sub-tropical, and tropical zones, and is fitted by nature to be absolutely self-contained and independent. Unlike the producer of colder lands, the farmer is not tied to long months of idleness, or to the uncertain promise of one crop a year. If one crop fails, he can plant and reap another, and another. Three crops may be gathered in one year, and ten of such fodder crops as lucerne or alpalfa. Every species of economic crops may be grown, and with what results will be shown later on.

SYSTEMS OF TENURE.

The system of land tenure, so far as it affects the farmer is comprised in various acts of the legislature, but it is simple and easily understood. It is based upon the acquisition of land by small payments, extending over a number of years. The words "rental" and "lease," frequently crop up, but except in connection with the great holdings of the pastoralists, they do not convey quite an accurate idea of the system. The freehold system is firmly established, but if anyone has a preference for leaseholds, the law provides for the adoption of that form of tenure. But as a general thing when a settler selects, or takes up an area of crown land, it is upon the well-understood plan that after he has fulfilled the conditions of the particular form of tenure, it shall become his absolute property. One of the conditions, is the payment of a certain sum every year, which is called rent, but is really part of the purchase money—it is the application on broad lines of the time payment system to the acquisition of land. The great part of the agricultural land which has become the property of prosperous farmers—often men who commenced with scarcely more capital than sufficed to pay the preliminary charges, was acquired in that way. The system has helped to competence thousands of industrious people, who have proved Queensland to be a country in which the business of getting on may be prosecuted

with remarkable facility. And if the comparatively poor man can do that, it follows that the man who has a little capital, and some skill and experience, is all the better equipped for the battle. Success to him is assured. The settled policy of the State is to spread far and wide a yeomanry population, to encourage every man to become his own landlord, and to help him in every legitimate way to establish himself firmly on the land, and join with others in increasing the production, and consequently the national wealth.

Queensland, as already indicated, is exceptionally favourably situated for doing that. The Crown, that is the State Government, has at its command an extent of rich fertile land, which exists in no other State. The total area of the State is



SELECTOR CLEARING SCRUB LAND IN QUEENSLAND.

429,120,000 acres. Of that area, only 14,585,560 acres have been alienated, 3,737,083 acres is in process of alienation, and 247,059,213 acres have been leased, mostly to pastoralists and graziers. That leaves 163,738,144 acres at the disposal of the State for settlement purposes, and it is subject to periodical increase from the falling in of pastoral lands. Of course, all is not suitable for agriculture, but a great part is, and the proportion of poor or arid country is very small. The greatest agricultural, i.e. farming settlement, is in Southern Queensland, but there is an abundance of splendid land in both the Central division, and the North. In addition to the Crown lands, there are available in the richest portions of Southern Queensland, large areas of private owned land, which the owners, realising the greater profit to be derived by devoting it to cultivation and closer settlement, are cutting up into suitable areas. That is a state of things peculiarly characteristic of the Darling Downs, a magnificent table-land area of about 50,000 square miles in extent, in the districts of East and West Moreton, which lie between the Main Range, which traverses the whole of the Eastern coast line, and the coast. These are the portions

of the State in which agriculture has made the most progress, but in which there is still ample room for a large and prosperous population. Some years ago, the Government took the initiative in securing for the people some of the larger estates, which had been alienated in the earlier days of the State, and these properties are now occupied by prosperous farmers. The success which attended these efforts at settlement, induced private owners to follow the Governmental lead, and the results so far have amply justified their efforts; and in that the existence of a net-work of railways has been an important factor. If the whole of the present population of the State were settled on the Darling Downs, there would still be room there for thousands, and all the rest of the State would remain to be filled up. As it is hundreds of thousands of acres, which but a few years years ago were mere sheep walks, are now occupied by farmers, who, acquiring their land at low rates, and bringing to their work experience and industry, have with scarcely an exception, won for themselves a competence. This favoured tract of country, unrivalled in Australia in its fertility and climatic advantages, is fast passing into the hands of a genuine farming population, every year increasing in numbers and prosperity. No where in the State has there been such an expansion of the agricultural industry, and no where, perhaps, are there greater facilities for expansion, for while the lands abutting on the trunk line of railway is increasing rapidly in value, and is increasingly difficult to obtain; there are many branch lines which tap more distant, but equally good lands, and it is the policy of the State to help the farmer, and remote settlement by the construction of railways in agricultural districts. There are hundreds of thousands of acres of first-class agricultural land ready for the plough on the Darling Downs, and the same may be said of the nearer coastal areas of East and West Moreton, and the more northern lands of the Wide Bay and Burnett districts. Very much similar country, equally rich, but at present less in demand for farming purposes, exists in the Central district on the Peak Downs, and in North Queensland in the Atherton-Herberton table-lands—the latter affording the phenomenon of temperate conditions, a delightful climate, and incomparably rich soil in the heart of the tropics, and already the home of perhaps, limited, but potential agriculture. How great is the range of choice in the matter of land, is shown by the fact that on the 31st December, 1906, there was open for selection, that is to say, open to any settler to take up in areas conformable with the different systems of acquisition, 13,629,270 acres. On the 31st December of the previous year, the area was 15,782,789, and there was added to it 4,245,917 acres. During 1906, for one reason or another, 3,193,608 acres were withdrawn, and there was selected 3,205,828 acres. The actual quantity of land available in different parts of the State varies from time to time. Sometimes it is more, and sometimes less, but there is always a great area to be allotted, and the State spares no trouble in maintaining a workable balance between the demand and the supply.

HOW TO SELECT.

For purposes of administration and public convenience, the State is divided into Land Agent's districts, and in the principal towns of each district there is a

Government Land Office, controlled and worked by a state official known as the land agent. These branch establishments are under the control of the Department of Public Lands, in Brisbane, at the head of which is a responsible minister of the Crown. An important division of it is an Inquiry office, at which intending selectors may obtain full information as to the position, area, and conditions of selection of any land which they may desire to secure. The office of the Agent-General in London, among its other functions, performs similar duties, and as under recent legislation, certain areas are set apart from time to time for selection in Great Britain, intending immigrants may equip themselves with land before they embark. The tendency of legislation and administration is to make it easier for immigrants to obtain authoritative information, and to take up land. Not the least important departure in that direction has been the passing of an Act, under which every immigrant, and for the matter of that, every resident in the State, if they undertake to fulfil the conditions, may obtain a free grant of 160 acres.

The modes of selection of interest to farmers, are agricultural farms, agricultural homesteads, scrub selections, unconditional selections, group selections, and what are termed prickly pear selections. There are other methods of acquisition, such as out and out purchase, or grazing selection, but it is not necessary to deal with them here. The more accessible lands near lines of railways, centres of population and navigable waters are usually set apart for agricultural selection, in areas from 160 acres to 1,280 acres. Each form of selection has its special conditions, and so liberal are land laws that even an alien may acquire land, but if he do, he must become a naturalised British subject within three years, or all his right, title, and interest becomes forfeited. Take first what are called "agricultural farms." Any one person may take up to 1,280 acres. The minimum is 10s. per acre, and the selector has twenty years to pay it. This annual rental, or as explained already, his instalment of purchase money is one-fortieth of the purchase money. That may be 10s., or it may be more, but usually it is something between that and 20s. The selector must reside personally on the land, or employ a manager or agent to live there for him. Within five years he must enclose land with a substantial fence, or put upon it some improvement of the corresponding value. Having done that, he becomes entitled to a lease, and if he wish, he may mortgage the property, or with the consent of the Minister sub-divide or transfer it, or with the approval of the Land Court, may sub-let it. The area which may be taken up as an agricultural homestead, varies with the value of the land, and is usually definitely fixed in the proclamation throwing the land open for selection. It may be anything within these limits. 160 acres of land valued at not less than £1 per acre; 320 acres of land valued at less than £1, but not less than 15s. per acre; and 640 acres of land valued at less than 15s. per acre. This is what is called half a crown an acre land. That is the purchasing price, and the selector is allowed ten years in which to pay it, the annual rent charge being three pence per acre. Land taken up in this way must be occupied continuously by the selector—at any rate for five years. At any time after that probationary period, he may convert his tentative title into freehold, by paying up the balance of the 2s. 6d. per acre. Then a deed of grant is issued in fee simple. Wha-

is known as unconditional selections are purchased on the instalment plan, without any stipulations as to residence or improvements. The greatest area which may be taken up by one person is 1,280 acres, and the price ranges from 13s. 4d. an acre to 20s. and over, 20 years being allowed for the purchase. Another form of settlement which has become very popular of late is the group system. Suppose a number of friends or several families desire to take up land near each other, so that they may help one another, or have the pleasure of living near each other, forming among themselves a little community or group, they may apply to the Minister for Lands to set apart for them land to be open to selection as agricultural farms or agricultural homesteads. If the Minister is satisfied that everything is bona fide, he throws open a given area of land, and it is competent to the members of the group to take it up on terms similar to those allowed to individual farmers and homesteaders in priority to any other selectors. Many successful groups have been established on this system, some of them consisting of trained farmers from the States of Victoria and New South Wales, and some of them made up of Queenslanders. This type of settlement has many advantages. It enables neighbourly self-helping communities to be established, and combines the incentive of individual ownership with the conveniences of friendly or business-like co-operation. Each little community may have its village, its school, and its church, and that feeling of isolation which is liable to come to settlers who find themselves miles away from a township or social intercourse, is avoided. There are other forms of settlement, devised mainly for preventing the spread of such pests as prickly pear, and to offer inducements to pioneers to take up land covered by dense scrub, but it is not necessary to allude to them here. They are not likely to appeal to settlers who are not inured to local conditions.

CROPS AND PRODUCTION.

Having shown the climatic and the potential aspects of farming, it may be interesting to glance briefly at the actual position at present. Immense strides have been made both in the extent of the land under cultivation, and in the methods of farming. In 1860, machinery and labour-saving implements were but a small factor in rural pursuits. The population was only 28,056, and the total area under a more or less primitive form of cultivation, was but 3,353 acres. In 1906, the population had grown to 535,110, and the cultivated land had been increased to 598,777 acres. In 1860 there was .12 an acre of cultivated land per head of the people, while now there is more than 1.12 acre, so that though the population has increased 19 fold, the area under cultivation has been multiplied 179 times. Wheat is grown chiefly on the Darling Downs, and in the country to the West. Of this cereal, there were cultivated in 1906, some 114,575 acres, and this was below the figures for the three preceding years. The average yield per acre for the past 20 years has been 14.20 bushels, as against New South Wales 9,72, Victoria 7.91, South Australia 9.68. The highest record for Queensland was reached in 1903, when the average return per acre was 17 65. The area cultivated was then much larger, and the season was more propitious. The finest wheat is grown in the Maranoa district, but the occasional shortage in the rainfalls is liable to pull down the average there. It is con-

fidently expected that deep ploughing and systematic drill-soil cultivation will be the solution of the climatic difficulty, and result in this Western country becoming the most successful wheat producing part of the State. Space will not permit a systematic reference to each crop. Of barley, there were planted in 1906 8,601 acres, and that yielded an average of 18.40 bushels to the acre. Maize, which has come into increased importance from the advance made in dairying, was cultivated to the extent of 139,806 acres, and the yield was 26.49 bushels to the acre. There were 11,307 acres of potatoes planted for a return of 2.76 tons to the acre; 14,866 acres of oats of which 62 per cent. was mown for hay, 30 per cent. for forage, and



STACKING WHEAT, QUEENSLAND.

8 per cent. for grain, giving a return of 23.37 per acre; 64,498 acres of fodder crops, yielding an average return per acre of 1.46 tons. These are but few of the crops. The range of production includes cotton, arrowroot, tobacco, rice, coffee, and various tropical crops. The malting barley grown on the Darling Downs is equal to the best Californian. In the same favoured area, all kinds of English fruits and vegetables are raised of unimpeachable quality, while the vine and citrus fruits flourish most luxuriantly. The rich littoral belt to the east of the Great Divide is largely devoted to sugar, bananas, and tropical fruits, rice, coffee, cassarra, arrowroot, and sisal hemp. There is in truth no exaggeration in saying that Queensland land will grow anything and everything. If a man wishes to engage in ordinary farming, he may settle in Southern Queensland, and grow cereals, combining with agriculture proper, as many do, the breeding of lambs for the export market, the raising of high class sheep, cattle, or pigs, or dairying. Much the same programme may be followed in the Central division, and in the plateaus of the North, while on the purely coastal areas the cultivation of sugar cane, maize, coffee, rubber, rice, and fruits may be prosecuted with success. There are great distances between these divisions of an

exceedingly large state, but the means of communication by sea and rail are good. There is not one climate but many; the conditions are rarely diversified, and the products, as has been shown, of infinite variety. Everything may be said to be on the side of the plucky, the industrious, and the enterprising. Government assistance to the agriculturist is furnished on the one hand by an agricultural college, at which his sons may be trained in scientific agriculture, and on the other by state farms, where experimental cultivation is carried on for the benefit of the farmer, and the seed and plant life most suited to the conditions of particular parts of the State are developed and acclimatised. Then if monetary assistance is required, there is a State land bank, to which the settler may have recourse, and obtain advances at low rates of interest, and upon easy terms of repayment.

No. 2.—DAIRYING.

SIXTEEN years ago it was necessary to import for consumption within the State, 781,422 lbs. of butter. Last year, not only was the whole of the local demand supplied, but there was an export of 14,034,332 lbs., most of which was absorbed by the British market. There is in fact, no industry which has made equally rapid, continuous, and substantial progress, or has brought more prosperity to the farming community. Not only has every year witnessed a great advance in production, but herds have been improved, and the number of persons engaged in the industry has increased. Several causes have contributed to those salutary ends, and they are as operative now as they were when the industry first came into prominence, so that the prospects of continued expansion are absolutely unrestricted.

As in the meat trade, refrigeration has been the very mainspring of development, for without freezing works ashore, and ample refrigerated space on the steamers trading between Queensland and other parts of the world, there could have been no advance beyond the confines of local markets. Refrigeration, which owes its practical form to Australian inventiveness and enterprise, supplemented by the development of scientific experts in other parts of the world, has been the open sesame to the markets of Asia, Africa, and Great Britain. It has given dairying its present status as one of the great wealth producing industries of the State, and it provides the means of infinite enlargement. Generally speaking, the volume of production is limited only by the number of persons engaged upon it, for there is a great area of the State in which dairy farming may be carried on successfully, and comparatively speaking, only a fractional part of it is employed for that purpose. Most of the coastal lands of Southern Queensland, large areas in Central Queensland, a considerable portion of the Northern coast lands and the table-lands of the North, are capable of being devoted to dairying. It is probably no exaggeration to say that the industry, important though it has become, is yet in its infancy. The British demand seems to be practically unlimited, but apart from that, there is a growing trade with the East, the Phillipines, China, and Japan, and the export to South Africa is already considerable. All those circumstances point to a very active and prosperous future.

Originally, Queensland was a purely pastoral country, and it was long, as periods are counted in these young communities, before agriculture received any attention. Dairying as a separate industry, bulking in statistics, came much later. It is the youngest of the producing industries. Farmers of course made butter, but they concerned themselves little with the breed of their herds. It was not until comparatively lately, it was learned than an inferior cow is an expensive, and relatively an unproductive possession. The first stimulus to dairying was given by the Government, which in these parts of the world has to take a prominent part in industrial development. The Government engaged an expert in dairying, Mr. J.



A CORNER OF A QUEENSLAND DAIRY FARM.

Mahon, the present principal of the State Agricultural College, and equipping a travelling dairy, sent him journeying through the agricultural districts, lecturing and teaching. The results were gradual but unmistakable, and while the quality of butter got better, the farmers began to study how to improve their herds. Inferior animals were culled out, and replaced by cows that paid to feed. That process, still going on and far from complete, has borne excellent results. Other instructors followed in the wake of Mr. Mahon, and from comparatively small beginnings has grown up a system of assistance, encouragement, and supervision of the industry which is remarkably complete. The State has also imported valuable bulls, and their example has been followed by private individuals, with the result that the dairy herds are being continually improved. The old fashioned cow was of a beef strain, and a poor milker. The cow of to-day is the one which will return the greatest quantity of milk with the largest proportion of butter fat. With this change, naturally has come a revolution in methods, and the substitution of the butter factory for the individual butter maker.

Nature has done a great deal for the dairy farmer in Queensland. Except in unsheltered uplands in the winter season, he has no occasion to house or rug his

stock; and except in exceptionally dry seasons, he has little need to feed them artifically. The natural grasses are of such nutritious properties, that they supply the bulk of the feeding that stock require. In many pastures, such grasses as paspalum dilatatum have been laid down with remarkably satisfactory results. Lucerne and oats, and other fodder crops are cultivated by dairy farmers, while not a few of them are giving their attention to ensilage. Still the rich natural grasses of the pasture lands may not unfairly be said to lie at the very foundation of the success of dairying. The Colonial Botanist, Mr. F. M. Bailey, F.L.S., is a warm advocate of the natural grasses in comparison with imported grasses, and experiments are being made on State experimental farms, with a view to testing their relative advantages. The dairy farmer, therefore, has these advantages to begin with. The land is cheap; he has not to house or stall-feed his cattle; and the natural grasses flourishing on his land supply him with the greater part of feed that he wants. Everything else practically lies close at his hand, either by cultivation, storage, or preservation in the form of ensilage. The practice, natural upon the systematising of the industry and the introduction of valuable stock, is to supplement the natural pasture feeding, by grazing on lucerne, feeding on oaten hay, lucerne, hay, maize, ensilage, or other fodder. The number of pure bred stock is being continually increased, by private importation and by importation by the Government; and the effect is to be seen at the different agricultural shows held every year in agricultural centres. The display of dairy stock form the most attractive features of these exhibitions. That is particularly the case with the annual shows of the National Agricultural and Pastoral Society, held in August, in Brisbane. The ring parades of Ayrshires, Jerseys, crossbred Shorthorns, Guernseys, etc., demonstrate that the dairy farmer is fast emancipating himself from crude, old fashioned ideas, and is endeavouring to keep pace with his confreres in other countries.

The part which the Government takes in connection with the industry, is in a sense paternal—some possibly regard it as too much so. The Government recognises, however, that an export trade can only be maintained by supplying a good article. It, therefore, undertakes to see that the good name of Queensland butter is not endangered by allowing an inferior product to be shipped away. A well equipped department supervised by an experienced and capable expert, Mr. G. S. Thomson, serves at once an educational and a superintending function. Acts of legislature provide for the supervision of all matters connected with dairying up to the point of export. First the dairy farm is inspected to see that the dairy cows are healthy, the yards clean, separating machines in good order, and as far as possible, all the surroundings wholesome. Cream inspectors see to the cleanliness of factories, the maintenance of the standard of cream, and the methods of manufacture. Then when the butter has been made and passed into the cold chambers, it is weighed, tested, and graded. Every box of butter that leaves the State for markets beyond the seas, is graded and stamped according to its grade, so that so far as Queensland is concerned, the distant consumer is scrupulously protected. He probably fares better than the people of the State, for there is nothing to prevent butter rejected for export being sold locally. The producers did not at first take altogether

kindly to this supervision, but they have come to see its advantages, and they have reaped the benefit in the better prices obtained in the London market. The factory system has no doubt facilitated Government supervision, as well as concentrated manufacture. It would be very difficult in a country of such magnificent distances as Queensland, to carry out inspection if every farmer were his own butter maker. Of course he is in a sense, but the quantity of butter made by farmers is insignificant compared with the output of the factories, and the whole of it is consumed in the State. When things were less systematised, dairy farmers used to send their milk to the local factory to be separated. The factory took the cream, and paid for it at the current



CONDENSED MILK FACTORY, S. QUEENSLAND.

rates per lb., and the farmer if he wished took back the separated milk for his pigs. Now each farmer has his own separator, and he sends his cream to the factory, where it is graded, and paid for according to quality. Of these factories there were registered in 1906, 64, situated in different parts of the State, and there were some 9,141 dairies registered. The total number of dairy cows was 193,275, and the average number being milked was 130,386. The output of the factories was 21,273,085 lbs., while farmers themselves made 1,409,521 lbs. The whole of the latter went into local consumption, and there was exported 14,034,332 lbs. valued at £582,326. The progress of the industry may be gauged by the expansion of the export trade; and the following short table of quantities and values will show how rapid the growth has been:—

	1901.	1902.	1903.	1904.	1905.	1906.
Quantity (lbs) ..	2,085,998	552,625	1,223,414	9,520,921	11,773,182	14,034,332
Value	£86,171	£24,610	£49,804	£344,943	£455,863	£582,326

Those figures are striking, but the statistics of production are even more so. Let us take them from 1902.

1902.— 4,851,362 lbs.
1903.— 7,717,325 lbs.
1904.—17,538,473 lbs.
1905.—20,319,976 lbs.
1906.—22,746,593 lbs.

The chief seat of the industry is in Southern Queensland, but there is a considerable amount of dairying done in both Central and Northern Queensland. In some instances farmers confine themselves to dairying; in others they combine with it pig raising, while others again do general farming as well as dairying. The tendency is to specialise rather than to generalise; it pays better. Dairying and pig raising form a natural and profitable combination, and there are not many people more keenly alive to their own interests than farmers. Consequently that is the combination most frequently met with. It carries with it of course, the necessity for cultivation of fodder crops, but still, the main business of the dairy farmer is dairying and pig raising. The largest manufacturing centres are the Toowoomba District on the Darling Downs, and the Brisbane District. The former, in 1906, manufactured 3,837,484 lbs., while Brisbane made 3,278,268 lbs. of butter.

Reference has been made to the assistance given to the industry by the State. That, as already indicated, is instructional, experimental, and inspectorial. It is also financial. Under the Meat and Dairy Produce Encouragement Acts of 1893 to 1904, the State makes advances to farmers to establish co-operative dairy factories; to proprietorial factory companies, to creameries, to cheese factories, and to meat companies. To the latter, advances totalling £100,437 5s. have been made, while dairying enterprises have been assisted to the extent of £15,711 16s. 8d. One result of this has been that co-operative dairy factories have been established in many centres, with distinct advantage to the producers and the industry. These are essentially popular institutions; they are managed by the people and for the people. The farmers establish, manage, and work them, and the profits, instead of going into the pockets of proprietors, are distributed among the farmers, who happen to be shareholders. This system has been a complete success, and it will no doubt be largely extended as the industry expands. Out of the total advanced to dairying companies there was outstanding on 30th June last (1907) only £6,997 13s. 2d. for principal, and £444 7s. for interest.

Cheese making is carried on mostly at Clifton, Toowoomba, Killarney, and Warwick, on the factory system. In 1906 these districts made 2,503,110 lbs., and the total quantity made in the State was 2,921,140 lbs., so that they manufactured about 86%. The average quantity of milk required to make one lb. of cheese was 0.94 gallons in 1903; 1.02 gallons in 1904; 0.98 gallons in 1905; and 0.99 gallons in 1906. The quality of the product is excellent, and it is finding a good market outside the State. In 1905 no less than 55,799 was exported to the East, and shipments to Great Britain have met with a favourable reception. Another outlet for the produce of the dairy farms is the preservation of milk. Preserved and concentrated milks of proved quality are made at two factories which have been assisted by Government advances. Chemical analysis has shown that the Queensland article is the equal if not the superior of the imported product; and European manufacturers have already decided to face its competition by establishing works of their own.

Australia consumes a great quantity of tinned milk, and the Swiss and Danish makers, who used to have the control of the market, have found the local article a formidable competitor. By establishing works in Australia they will become Australian, for though the profits of manufacture may go abroad, the milk treated will be provided by Australian dairy farmers, and a considerable expenditure will go to swell the prosperity of the local producers.

A vital factor in the success of the dairying industry has been the establishment of regular shipping communication between Brisbane and London and Brisbane and Eastern and African ports. It was a great battle to get the great mail steamers to call at Brisbane, but it was accomplished by the Queensland Government, paying a special subsidy of £26,000 a year. By that arrangement the butter exporters got a regular weekly steamer by which to ship their produce. Other regular lines of steamers provide the means of transit to the East and to South Africa. Under the new contract between the Commonwealth Government and the Orient Company improved facilities will be provided for butter and perishable produce. There can be no question that the production of butter in Queensland will be enormously increased during the next few years, and the bulk of the output will find its way to London. The fact that between 1st July, 1906, and 30th June, 1907, the value of the butter export was over £500,000, indicates in a striking way the importance of the trade. Seeing that the export value leaped from £49,804 in 1903 to £344,943 in 1904, it is hardly likely that it will be more than a few years before it totals £1,000,000. The outlook of the dairying industry, for the farmer, the manufacturer, and the exporter, is exceedingly bright, and big with possibilities.

No. 3.—FRUIT PRODUCTION.

IF, as has been shown, there is a great diversity in the agricultural products of Queensland, there is in quite as remarkable degree, a variety of fruits. There are many native fruits, but these are not cultivated to any considerable extent, and indeed some of them will flourish only in their native wilds. The forests and scrubs have their nuts and wild fruits, but these are not the products with which the fruit grower concerns himself. The fruits which have his attention are almost all the indigenous products of other lands and other climates. They comprehend almost all the fruits familiar to English people, and so well have they been acclimatised, that many of them flourish to greater luxuriance than in their native homes. In an ordinary fruit shop in Brisbane you may see exposed for sale the fruits of the temperate zone, the sub-tropics and the tropics. On the higher and colder tablelands, apples, grapes, cherries, pears, peaches, plums, and nectarines are grown in abundance and of excellent quality. Nearer the coast and in many coastal centres, pineapples, oranges, lemons, and many of the fruits just mentioned find a place alongside products which do better in a warmer and more humid climate. Such for example are the paw-paw apple (a fine digestive fruit), the banana, the passion-fruit, the custard apple, and the granadilla, a lucious fruit like a giant passion-fruit. Bananas are grown chiefly in North Queensland, and the markets of Australia drad the ma

their principal supplies of that popular fruit from that source. Pineapples, which, in Europe, are rare and expensive, grow splendidly both in the South and the North, and they are very cheap and very plentiful. The mango, a fruit of varied and sometimes delicious flavour, is also very abundant, while stone and citrus fruits generally are easily cultivated, and usually yield luxuriant crops. Strawberries, too, do well in certain parts of the State, but unlike the peach and the orange, the mango and the pineapple are rather fastidious in the matter of climate. Generally speaking, fruit growing represents an important and widely extending industry, and many people wax prosperous by growing pineapples; some devote themselves with equal success to citrus fruits, while others cultivate several varieties of fruits. The most important crops from a commercial point of view are bananas, pineapples, oranges, and grapes. The first named is chiefly grown on the rich alluvial coastal lands of North Queensland—that is, within the tropical belt. Large plantations are to be seen there on the banks of the rivers, while alongside rough jetties will be moored capacious boats of shallow draft, but good holding capacity, being loaded with the heavy bunches of the fruit. It is the practice to cut the bunches while the fruit is green, so that it will carry better. It ripens on its way to market or in the stores of fruit dealers. The cultivation is carried on systematically, and it yields substantial profits to the producers. Unfortuntely most of these are Chinese, for the European, though he will grow sugarcane in the tropics, seems to take but little interest in banana growing. On what a large scale it is carried on is shown by the fact that the crop of the 1907 season amounted to 1,250,000 bunches. This was the product of 5,163 acres, and the Northern trade alone represents a return per year of considerably over £50,000. The Queensland banana has the chief place in the market of Australia, the only competition coming from Fiji. Though essentially a Northern industry and a fruit which flourishes best in a hot and moist climate, the banana is also cultivated in the vicinity of Brisbane and Maryborough. It is in the districts about the capital of the State that pineapples are principally grown, and the production of late years has increased considerably. Pineapple farming requires very little labour, and a comparatively small area yields a comfortable income. In the whole of the State there are 1,926 acres devoted to this fruit, and the production last year (1906) was 601,969 dozen. Two crops are gathered in the year, but the greatest and the most profitable is that of summer. Large quantities are exported to the Southern States, and the surplus is absorbed by canners and jam makers, whose industry is assuming an important place. It is well-known that a cider of remarkably fine quality can be made from the fruit, and steps are being taken to utilise what is regarded as the waste produce of the crops in that way. There are always quantities of pineapples too small for sale or canning, and these, before long, will be utilised for cider making. The best pineapple cider is regarded by connoisseurs as superior to the product of the apple, and scarcely inferior in flavour or sparkle to the best champagne. From a growing and a manufacturing point of view, there is a splendid outlook for the pineapple industry. Oranges which are grown in the Cairns, Cardwell, Bowen, and Mackay districts in North Queensland are ready for the Southern markets before the Southern crops are ripe, and a considerable export



A WELL-KEPT QUEENSLAND ORCHARD.

trade has been built up, owing to that reason. The later crops of the Southern portions of the State keep up the supply so that there is hardly a period of the year when the fruit is not plentiful. By the time the Queensland oranges are exhausted, the crops of the Southern States are ready for the market, so that one State is able to supply the deficiencies of another. There are some 3,190 acres planted with orange orchards in different parts of the State, and the total production last year was 3,199,201 dozen. Grapes of excellent quality are grown in many centres in the Southern division, but the best come from the drier Western country around the town of Roma. Altogether, the acreage of vineyards is 2,044 acres, while last year's crop aggregated 3,572,570 lbs. Wine to the extent of 65,016 gallons, brandy to the amount of 628 gallons, represented the manufacturing side of this industry. The great proportion of the crops goes into consumption as fresh fruit. Experiments have proved that a raisin grape can be grown with success in the Central-Western district of Barcaldine, and Gordo Blanea and Sultana grapes are being planted there for that purpose. There is a good prospect of another industry being established on a profitable basis, and that will be rendered the easier by the fact that there is plenty of artesian water available for irrigation purposes. Barcaldine, once an arid, dusty western town, has been redeemed, as it were, from the desert by artesian water, and it is now well planted with fine shade trees, and flowers, and fruits, and wheat have been added to the products of the district. The fruit industry is encouraged and carefully watched over by the State. An expert is employed for the purpose of instructing growers, and helping them to battle against the pests which, from time to time, threaten the orchard, for in a country of luxuriant production noxious forms of life are stimulated as well as useful crops. The expert, Mr. A. H. Benson, in his report for the year 1906-7, stated that the Stanthorpe district on the Darling Downs had produced the largest and finest crop of plums, peaches, and nectarines that it had yet grown, while the apple crop was also good. The citrus crop of 1906 was a record one, and he added: "The crop for 1907 is also a good one, the quality being excellent; in fact, the exhibit of citrus fruits at the Maryborough, Rockhampton, and Gayndah Shows was equal in quality to anything I have seen, either in this or the Southern States, Washington Navel Oranges and Lisbon Lemons grown at Barcaldine being the best I have seen in Australia." There are many ways of making a living in Queensland, and fruit growing is one which many industrious settlers find both congenial and profitable.

The

Pastoral Industry

Queensland's Wealth in

WOOL, MUTTON and BEEF.

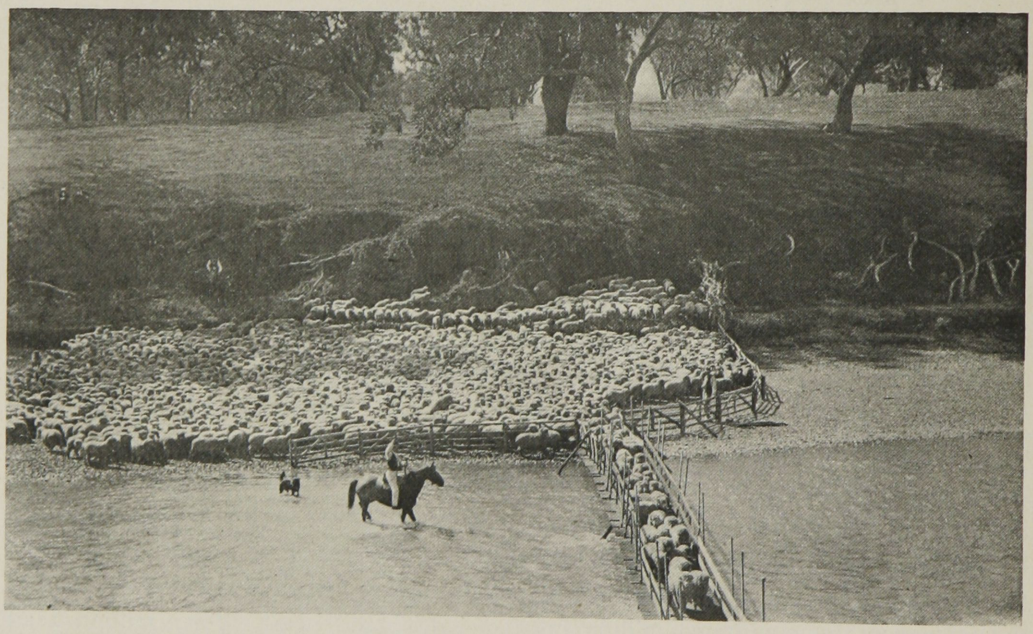
(By A G. Davies).

TO hundreds of thousands of folk in the old land which was the cradle of the British race, the name Australia is one which conjures up visions of wealth derived either from wool or gold. Many a novel and many a drama set before the British fiction lover or play-goer as the case may be, has for its central figure either a millionaire squatter or a lucky gold digger who has struck it rich, and "gone home" to spend his fabulous treasure in all sorts of wonderful ways. Strange how the two great industries (grazing and mining) have rivalled each other for pride of place in this respect. Speaking generally, it may truthfully be said of Queensland, as of the other States of Australia, that pastoral occupation has been the initial form of settlement in the country. Wherever any extensive tracts of land suitable for grazing were discovered by the early explorers; there the squatter located himself, taking up as large an area as his means and other circumstances permitted him. The inauguration of pastoral pursuits in Queensland preceded by some years, the separation of the Colony from the mother State of New South Wales. The industry had its genesis in the famous Darling Downs, discovered in 1827 by Al'an Cunningham, the great botanist and explorer, who had overlanded to that part of the country from the settlement at Port Jackson. It readily may be imagined how the heart of the plucky traveller and scientist must have gladdened at the sight of such a vast expanse of rolling downs country, and at the realisation of the vast potentialities there existent. The news of his discovery duly reached Sydney, but it was twelve years later when Patrick Leslie, the first of the squatters to settle in Queensland, pitched his camp on what he regarded as the choicest area on the Darling Downs. It appears in one of the early records, that in the year 1841, there was but one hut, and that a roughly constructed one of hewn timber, roofed with bark, on the Darling Downs, and that this modest dwelling was the head station of Patrick Leslie at Toolburra. It was not long before the example of this hardy pioneer was followed by others, and before many years elapsed, the whole of the 4,000,000 acres on the Darling Downs was occupied in one way or another.

Among the earlier of the Queensland sheep stations, founded subsequent to Toolburra, were Jimbour, Eton Vale, Talgai, Yandilla, Canning Downs, Glengallon and Emu Vale, and most, if not all of these have since been subdivided and made the means of settling large numbers of prosperous farmers, who are now cultivating on

scientific principles what formerly served as a mere sheep walk. It was through the medium of the Darling Downs pioneers that the grazing lands comprised within the watersheds of the Brisbane and Logan Rivers afterwards were turned to account, and as time passed on, pastoral settlement was extended to the Burnett and the Maranoa. In the early forties, the explorer Leichhardt, pursuing his heroic investigations, travelled right through from the Darling Downs to Fort Essington, in the Northern Territory of South Australia, and in the course of the journey discovered extensive areas of splendid country in the central and northern divisions of Queensland. To the credit of another explorer, Sir Thomas Mitchell, must be placed the discovery of the great Western country of Queensland, and so it was that the vast tracts of pastoral lands on which millions of sheep and cattle are now pasturing, were brought within the cognisance of those, who, as time progressed, were able to occupy them. As the special characteristics of the various districts became fully realised, they were utilised as sheep runs or cattle stations respectively. While possessing large tracts of ideal sheep grazing lands, Queensland has gained a reputation more especially for its virtues as a cattle raising country. The lands on the seaward side of the Great Dividing Range, where they have been put under agricultural cultivation, are chiefly utilised for the fattening of cattle, while the country between the coast line at Townsville and Bowen, and the western boundary of the State, including that bordering on the Gulf of Carpentaria, embraces most of the largest cattle stations of the present day. In addition, however, there are a number of pastoral holdings in the Central, Western, and South Western districts, where large herds of cattle are depastured. On the other hand, it may safely be asserted that almost the whole of Queensland is suitable for sheep raising, and the portions of her pastoral territory not specially fitted for cattle, can all be utilised for the grazing of woolly flocks. The magnitude of the pastoral industry readily can be grasped when it is remembered that the State contains over three million head of cattle, and nearly fifteen million head of sheep. The returns of the Department of Agriculture and Stock published in the annual report for 1906, show that in the year under review, there was 3,413,919 head of cattle, as against 2,963,695 in the previous twelve months, or an increase of 450,224. They also indicate that the sheep in Queensland numbered 14,886,438 in 1906, and 12,535,231 in 1905, or an increase in the former year of 2,351,207. The herds and flocks in Queensland reached their greatest dimensions in 1897, when there were within its borders no less than 6,089,013 head of cattle, and 17,797,883 sheep. The succession of dry seasons which followed that year brought about a steady reduction in the numbers, until in 1902 there were only 2,543,471 cattle and 7,213,985 sheep. The most encouraging feature of Queensland from a grazing point of view, is its wonderful recuperative power after the prevalence of droughty conditions. This has been abundantly evidenced since the break up of the last drought, as the flocks and herds of the State have shown a surprisingly steady increase each year since 1902. The natural increase of stock during 1906 was exceedingly satisfactory, the lambing in the best of the sheep districts being from 70 to 80 per cent., while the yield of calves on many of the largest cattle stations was from 80 to 90 per cent.

Naturally enough, the conditions of the pastoral industry in Queensland at the present day differ widely from those of the early times. In the pioneering days, the squatters virtually owned the whole country. They enjoyed almost a monopoly of the good land, and for some years after 1859, when Queensland was separated from New South Wales, they had a predominating influence in the legislature. With a big inflow of population, however, a demand arose for land for closer settlement, and the claims of those who desired to secure areas for agricultural use were energetically pressed by certain members of the Queensland Parliament. The first effect of this was that many of the squatters were compelled to surrender portions of their



SHEEP CROSSING A RIVER BY TEMPORARY BRIDGE, CENTRAL QUEENSLAND.

holdings, upon which the intending settlers were to make their homes, and to devote themselves to cultivation. In subsequent years, however, the demand for farming lands became still more pressing, with the result that the big pastoral leaseholds gradually diminished in size, and those pastoralists who desired to continue operations on a similarly large scale, had perforce to betake themselves to localities somewhat more remote. As may be imagined, the graziers of the early days were called upon to face many dangers, and to struggle against many adverse conditions. The pioneers were at all times exposed to the risk of attack by beligerent tribes of aborigines, while their flocks needed constant watchfulness as a precaution against the depredations of wild animals and birds of prey. The careful shepherding of the flocks was essential in those times; but conditions have since undergone an entire change. The shepherd now is an institution of the past, thanks to the multiplication of wire fences, and the more thorough sub-division of the holdings, while on the other hand the animal pests generally, have been got more under control as settlement has advanced. Well managed stations now-a-days, are cut up into small paddocks by means of modern sheep proof fences, it having been found that in this way the best

results from grass feeding are obtained. One of the greatest handicaps which the pastoralists of Queensland have had to cope with, is that brought about by the rabbit invasion. This misfortune also is shared by the neighbouring States of New South Wales and South Australia. The Government of Queensland always has shown a readiness to assist the pastoralist in grappling with the pest, and has ungrudgingly spent large sums of money with that end in view. At the end of 1906, the estimated length of the rabbit proof fences in Queensland was 16,151 miles. In addition to the erection and maintenance of these fences, there has been a liberal expenditure on rabbit poisoning. As a result of the consistent endeavours to combat the pest, it is considered that it now is well under control, and the Under Secretary for Public Lands in his 1906 report states that "it cannot be said that the position is on the whole, worse than in previous years."

The importance to Queensland of the pastoral industry as a whole is shown by an analysis of the latest returns of the exports from the State. During 1906, the total exports from Queensland (including pastoral, agricultural, and mining products), amounted in value to £12,511,217. The exports of pastoral products alone amounted in value to £5,638,520, or 45 per cent. of the total. This will suffice to indicate the need for a sympathetic treatment of those who contribute so largely to the wealth of the State. The value of the wool alone exported from Queensland last year was over three million pounds sterling, and probably this does not represent the whole amount which was sent away, as quantities of wool are dispatched over the border into New South Wales, and by the coastal steamers to Sydney, which are not fully accounted for.

The flocks of Queensland, the golden fleece from which furnishes so handsome a return to the pastoralist, are almost entirely derived from pure merino stock. The Lincoln and the Shropshire breeds also are represented to some extent, being used for the raising of cross-breds especially suitable for export as frozen mutton. The merinos, however, very largely predominate, though as more and more attention is paid to the lucrative industry of lamb raising, it is probable that the cross-breds will come into greater favour than has been the case hitherto. It is undeniable that this is a branch of grazing which gives promise of great things in the future. In New Zealand, the export of frozen lambs has reached gigantic dimensions, and the raising of the lambs has proved in the highest degree profitable to the sheep farmer. Many districts in Queensland are eminently suited for lamb raising and fattening, and the knowledge that this is so, is certain to be availed of more and more as time goes on. Certain experiments which are now being conducted under the auspices of the Department of Agriculture and Stock, in the cultivation of native grasses, are of particular interest in this connection. The Under Secretary to the Department referred to, in his report of 1906, says: "There is no reasonable doubt that in some quarters of the State some of our best natural grasses have been fed out of existence through overstocking, and by continual burning off, supplemented by drought; and it is anticipated that by means of the experiments now being carried on, our best grasses will be preserved to us, and that an increased interest in this important item in the domestic policy of the farmer and grazier will be evolved. By the information that

will be at his service, he will be able to understand what is best with regard to feeding quality and quantity, and so avoid the mistakes that he is now subject to, without being aware of the cause." It is due to the initiative of the Hon. D. F. Denham, formerly Minister for Agriculture, that this important branch of experimental work was undertaken. It should be stated, in fairness, that Mr. F. M. Bailey, the Queensland Government Botanist (who has a high reputation throughout Australia and in other parts of the world) has for some years past been sounding the praises of the native grasses in comparison to th imported varieties. On several of



ON A QUEENSLAND CATTLE STATION.

the experimental farms trial plots of selected native grasses are being grown, side by side, with similar plots of certain of the imported grasses, and in this way it will be possible for comparisons to be drawn, which will be of the highest possible value.

Another direction in which the Queensland Government is seeking to assist the grazier, is by the raising of pure merino stock for purposes of distribution. This has been rendered possible by the generosity of Mr. W. B. Slade, of Glengallan Station, Darling Downs. who some time since presented to the Government 50 selected stud ewes from the famous Glengallan flock. This flock, it may be explained, was established in 1855 by the late Mr. John Deuchar, on pure Spanish merino blood, and has been maintained, unalloyed, as that blood ever since. In 1828, a number of Saxon merino sheep were selected for the late Mr. J. Brindley Bettington, of Brindley Park, Merriwa, New South Wales, and brought to Australia by the late Mr. Frederick Bracker, in 1829. A draft of their direct descendants was purchased by the North British Australasian Company, and placed on the Rosenthal run, near Warwick. From the increase of that flock, the late Mr. Deuchar, in 1855 selected

100 ewes. These were by a pure imported Saxon merino ram, purchased in Sydney, by the late Mr. John Gammie, Talgai. Mr. Deuchar secured a son of that ram from one of the Brindley Park ewes, which developed into one of the best rams on the Darling Downs, and was long and widely known under the familiar name of "Billy." He proved unapproachable at every show at which he entered an appearance. He was described by those who had seen him, as a fine deep set sheep with superb, aristocratic head, and covered with a faultless fleece of remarkable evenness and quality. "Billy" was coupled in 1855 with the 100 ewes above mentioned, and thus was laid the foundation of the Glengallan flock. Subsequently, when in Europe, Mr. Deuchar personally selected 10 rams and 10 ewes from the flock of Baron von Maltzahn, in Mecklenburg, which was directly descended from a Spanish Royal flock. These imported ewes were mated with "Billy," and the rams with his progeny. A further infusion of the same blood was introduced in 1862, and since that time the flock has been bred entirely within its own blood.

One of the most interesting aspects of station life is that furnished by the operations of the shearers, though probably as the use of sheep shearing machines becomes more general, the shearing shed will lose much of its attractiveness and romance. Another consequence of the introduction of machine shearing is that the number of hands employed will be very greatly reduced. Already, as an outcome of the changing order of things, there has been an alteration in the time at which the shearing is performed. Formerly, the sheep were always shorn at the period of the year when the warmth of the season rendered it desirable that the fleece should be removed; but now in order to keep the shearers going all the year round, shearing operations are in progress practically in every month of the year in one district or another. Most of the machine shearing now is done by contract, and usually sheds are cut out each successive year in the same rotation, and by the same hands. The new arrangement has one distinct advantage in that it relieves the station owner of a large amount of responsibility which otherwise he would have to bear. Generally, the contractor takes delivery of the sheep at the shed, and accepts all responsibility for both sheep and fleece, until the latter is handed over to the wool classer, and the former safely placed in his pen. The contractor also usually makes arrangements for shearers, rouseabouts, and boys, and this also, to the squatter, means an acceptable relief from worry. A large proportion of the Queensland wool is sold in its greasy or unscoured state, though other pastoralists prefer to have it scoured first. In various parts of Queensland, there are wool scouring establishments in operation, where greasy wool is dealt with and afterwards repacked for export. In this way a substantial reduction in freight charges is effected, and this together with the higher price obtained for the product, more than compensates for the expense incurred. The wool growers of Queensland have benefited materially by the holding of periodic sales in Brisbane. These were inaugurated a few years ago, and have proved highly successful. Representatives of the largest wool buying firms of Yorkshire, England, and also of France, Germany, America, and Japan, regularly come to Brisbane for the sales, and the good prices realised, coupled with the saving of freight charges, and the advantage of obtaining prompt payments for the articles,

are each year inducing a larger number of Queensland pastoralists to dispose of their product at the local sales.

Concerning sheep properties generally in Queensland, it probably is a fact that, although the average size of the holdings is smaller than was the case years ago, yet there are stations at the present day as large, if not larger than ever before. Two of the largest stations devoted to sheep raising are Wellshot, near Blackall, upon which there were 176,816 sheep in 1906, and Tintinchilla and Welford Downs, in the Tambo district, upon which 180,000 sheep were depastured. Several other stations in the North Western, Central Western, and South Western parts of Queensland are carrying 100,000 sheep and over, while many more are capable of supporting between 50,000 and 100,000 sheep in an average season.

The largest cattle ranches are to be found in the Burke, Normanton, and Cloncurry districts. According to the returns rendered to the Stock Department, the largest herd is that on the Millungera and Taldora Stations, where there were 36,456 cattle belonging to the same owners in 1906. In former years, however, there were cattle stations on which the herds were considerably more numerous than in the case just quoted. In 1906, there were 27,309 owners of cattle in Queensland, and among these were 567 whose herds numbered 1,000 and over. The total number of cattle in the State in the year under notice was said to be 3,413,919.

In the early years of Queensland, cattle were bred and fattened on the lands embraced within the coastal districts. With the altered conditions that have since come about, however, the station owner finds it profitable to raise his cattle on the more remote runs of the interior, and to utilise the coastal country for fattening purposes only. In Australia, live stock are moved about from one part of the continent to another, often making trips several months in duration. Thanks to the writings of Banjo Patterson, and other latter day versifiers, to say nothing of Adam Lindsay Gordon, a halo of romance has been woven round the life of the cattle and sheep drover, more especially the former. The travelling of large mobs of cattle from the Gulf of Carpentaria to Adelaide, or from the Kimberley district of Western Australia to the Darling Downs and Brisbane is nothing at all unusual, and those in charge of such droving parties have many exciting experiences, even in these allegedly degenerate days. Along the stock routes, which encompass the continent, provision is made for the watering of the four-footed travellers by means of Government tanks and dams at various suitable spots. This leads one to think of the discovery and utilisation of the vast stores of artesian water, which practically has revolutionised the pastoral occupation of the interior. It was 1885, when the experience of a severe drought at a time when the pastoral lands were heavily stocked, compelled the Government to seek some artificial means of overcoming the adverse conditions, and helping the station owners through the stress of circumstances. Mr. R. L. Jack, then Government Geologist of Queensland, and Mr. J. B. Henderson, the Hydraulic Engineer, were sent out with instructions to study the Western country, and to report as to the prospects of boring for artesian water. As a result of their investigations, they recommended a sinking of a bore at Blackall, and this proved successful, though another bore put down at Barcaldine shortly after was the first

to tap a flow of artesian water. This success not only induced the authorities to put down Government bores in various parts of the interior, but also led numbers of pastoralists to follow suit. In most cases the Government bores were sunk with a view to ascertaining the artesian possibilities of new country, and, out of 54 such bores existing in 1906, flows of water were obtained in 24; in three cases supplies were pumped, while the remaining 27 are classified as bores in progress, abandoned or uncertain. In addition, there were last year reported to be 888 bores which had been sunk by station owners and others, 568 being successful so far as obtaining artesian flows was concerned, while in 146 cases supplies were pumped, the 174 being classed as bores in progress, abandoned or uncertain. It is interesting to note that the total aggregate depth bored exceeds 1,188,211 feet, equal to 225.04 miles, the average depth per bore being 1,221 feet. It is hardly possible to overestimate the benefits to be derived from the use of artesian water supplies, not alone for the watering of stock and for reticulation purposes in the inland townships, but also for systematic irrigation. Comparatively little has been done in the last mentioned respect in Queensland, which is somewhat surprising in view of such achievements as that of the French in Algeria, where no less than 12 million acres of the Sahara have been converted in fruitful fields. If so much has been accomplished in the case of the sandy waste above referred to, how much may not be done by the application of water to the rich soil of the western prairies of Queensland?

HOW GRAZING COUNTRY IS HELD.

Having thus briefly sketched the history of pastoral settlement in this Queenly State, I may conclude by explaining as concisely as possible, the various modes by which lands for grazing purposes may be acquired. Originally, such lands were always taken up under pastoral lease, and the area which a lessee was competent to hold was virtually unlimited, cases having occurred in which as much as 2,000,000 acres has been held as one property. The Land Act of 1902, provides for the classification of those leases, which still have an unexpired term to run, such classification to be on the basis of their suitability, or otherwise for the purposes of closer settlement. In this way, the runs in question are divided into four classes, and in accordance with this classsification renewals of the leases may be granted for terms varying from 10 to 42 years, according to its nearness to, or remoteness from, the closely settled districts. The rentals charged for such leases are subject to revision at stated periods by the Land Court, a tribunal intended to be entirely free from anything like political influence. Pastoral leases are held subject to the reservation by the Crown, of the right to resume a portion of the area during their currency in the event of such land being required for close settlement, the portion which may thus be resumed varying from one-third to one-half of the total area. In the interests of the lessee, however, this right of resumption is restricted by certain conditions.

Areas not exceeding 60,000 acres may be taken up as grazing farms or grazing homesteads, on leasehold tenure, the terms of which may extend over 14, 21, or 28 years. The annual rental of a grazing farm or homestead, for the first 7 years, may

range from ½d. per acre per annum upwards, and the rental for every subsequent grazing farm may be held, are that the lessee must continuously occupy the property, period of 7 years will be fixed by the Land Court. The conditions under which a either by personal residence or by the residence thereupon of his agent or manager Within three years of the license to occupy, he must fence the holding, and maintain the fence during his term of occupation. In the case of a grazing homestead, the lessee is required to personally reside on the land continuously for the first five years of his lease.

Other modes of selection are those provided by the Improvement leases and prickly pear leases. Within the former category are the scrub leases, which may be issued for 30 years at a pepper-corn rental, for periods of from 5 to 20 years, varying in accordance with the extent of the scrub on the land, while after the expiration of the non-rent-paying period, a rental varying from ½d. to a 1d. per acre will be charged. The maximum which may be held under scrub lease is 10,000 acres. During the non-rent-paying period, the lessee must clear a certain proportion of the holding annually, and keep it clear, and also must properly fence the land. In the case of the prickly pear leases, the maximum area is fixed at 5,000 acres, and the term varies from 10 to 15 years, the freehold being given to the owner when the terms of the lease have been complied with.



A PROFITABLE INDUSTRY.

Queensland Sugar Areas.

(By A. G. Davies.)

PROMINENT among the factors which go to make up the national wealth of Queensland, is that resulting from the cultivation of the sugar cane. The value of the industry may be estimated from the fact that in 1906, 184,377 tons of sugar were produced in the State, the area under cultivation being 133,284 acres. The idea of growing sugar on a large commercial scale originated quite in the early days, indeed, many years before Queensland attained the status of a self-governing colony. Early records show that two quaker philanthropists interested in the matter of prison reform visited the Brisbane settlement about 1828, and that these visitors remarked upon the suitability of the climate for sugar growing. At that time the land under cultivation for the purposes of the settlement was chiefly along the river side, about where the Botanical Gardens now stand, and even before the two quaker gentlemen appeared on the scene, the sugar cane had been introduced, and the cultivated plots in most cases were marked out by means of belts of this saccharine reed. About 1838, a Mr. Mayo, a planter from the West Indies, came to Brisbane, and during his stay at the settlement planted several experimental plots with tropical plants, including sugar, coffee, and cotton. The sugar plantation included plants of several varieties from Mauritius, as well as some from the West Indies. It appears, that after a time, Mr. Mayo returned to England, and reported to the authorities there what he had done, following this up by making application for a grant of 50,000 acres, asking as an alternative to be allowed to take up 100,000 acres at 5s. per acre. Whether it was that this application did not sufficiently appeal to the British Government or not is unexplained, but the fact remains that no more was heard of Mr. Mayo's proposal. In 1845, when the Port Curtis Penal Establishment was abandoned, Colonel Barney, who had been in command there, represented to the authorities that the land around the settlement might with advantage have been turned to account for the cultivation of sugar, cotton, and coffee. No very definite move in the direction of inaugurating the sugar planting industry, however, appears to have been made until after 1859, when Queensland was proclaimed a separate colony. Three years later, a special act was passed, under which certain areas of land were made available for the cultivation of sugar and other tropical products. Grants of land were made under the provisions of this Act, subject to certain conditions as to improvements to be effected, and to the proportion

of land to be cultivated within a stated time. Among pioneers who availed themselves of this opportunity were the Hon. Louis Hope, a relative of the Marquis of Linlithgow, who, as Lord Hopetoun, was first Governor-General of the Australian Commonwealth. Another of the early planters was Captain C. B. Whish. Extensive areas of forest land on or near the shores of Moreton Bay, in a wonderfully short time were denuded of their timber, and put under the plough, their next transformation being into waving fields of sugar cane. Several of those who thus inaugurated the industry were possessed of considerable capital, and this enabled them not only to plant large areas, but also to erect crushing mills for the treatment of the cane. Another who took a big hand in the industry was the late Mr. George Raff, then a prominent Brisbane merchant. Needless to say, the pioneer planters did not find it all plain sailing, but although some of them suffered reverses, it was soon realised that the industry was one with a future. Within the next few years after its establishment, the operations of the sugar growers had extended to the country on the banks of the Logan, Albert, and Coomera rivers. Subsequently, attention was drawn to the suitability of the soil on the banks of the Pioneer river, on which the town of Mackay now stands. It afterwards was established at Bundaberg, on the Burnett River, and in the districts wherein Bowen, Townsville, Cairns, Port Douglas, and other towns stand.

Official returns show that in 1906, there were in Queensland 133,284 acres under cultivation for sugar cane, this being in excess of the area in any previous year. For the purposes of sugar statistics, the State is divided into five divisions as follows, Rockingham (including Cairns, Port Douglas, Ingham and Mourilyan), Edgecombe (including Ayr, Bowen and Mackay), Port Curtis (Gladstone), Burnett and Wide Bay (including Bundaberg, Gin Gin, Childers, Maryborough, Tiaro and Gympie), and Moreton (including the Logan, Marburg, Rosewood, Maroochy and Nerang). In 1906 the largest acreage under sugar was in the Burnett and Wide Bay division, the area being 44,505 acres. Next to this is the Edgecombe division, with 42,182 acres, while in the Rockingham division there was an area of 39,282 acres. This serves as an illustration of the extent to which the industry has been developed in various parts of the State. While on this point it may be mentioned that in addition to all the capital invested in the sugar plantations themselves there is over £2,000,000 sunk in machinery, land, and premises, upon which refineries and sugar mills have been erected. In Queensland at the present day, there are two large sugar refineries, five juice mills, and 50 sugar mills, and in connection with these establishments, 3,221 hands were employed last year.

The Queensland Government has always been actuated by a desire to assist in developing the primary industries and in this respect sugar growing has not been overlooked. In 1893 an act was passed, the object of which was to authorise the making of advances by way of guaranteed loans for the establishment of sugar works. By the provisions of this statute the settlers in any locality are enabled to register themselves as a company for the erection and carrying on of central sugar mills, and empowered to issue debentures which the Government guarantee, the latter taking as security a mortgage over the works, and over the freehold lands upon which

the cane for the mill is grown. All that the Government requires is to be satisfied that sufficient cane will be grown to keep the mill going profitably. By an amending Act passed in 1895, the Government was authorised to buy these debentures itself, but the extent of guarantee or purchase, aggregated, is limited to half-a-million sterling. The value of this legislation may be judged from the fact that since it was passed, up to the present time, a total amount of £574,886 has been advanced to sugar mills under its provisions. The North Eton and Racecourse Mills in the Mackay district had been erected prior to 1893, but the State Treasurer for the time being nevertheless agreed to make advances to them in accordance with the terms of the bill. Since 1893 twelve other central sugar mills have been erected, by virtue of the bill. Of these, the Pleystowe, Proserpine, Marian, and Plane Creek Mills are situated in the Mackay district, the others being the Moreton, Gin Gin, Mount Bauple (Tiaro), Nerang, Double Peak, Mulgrave (Cairns), Mossman, and Isis.



IRRIGATED SUGAR CANE, BUNDABERG DISTRICT.

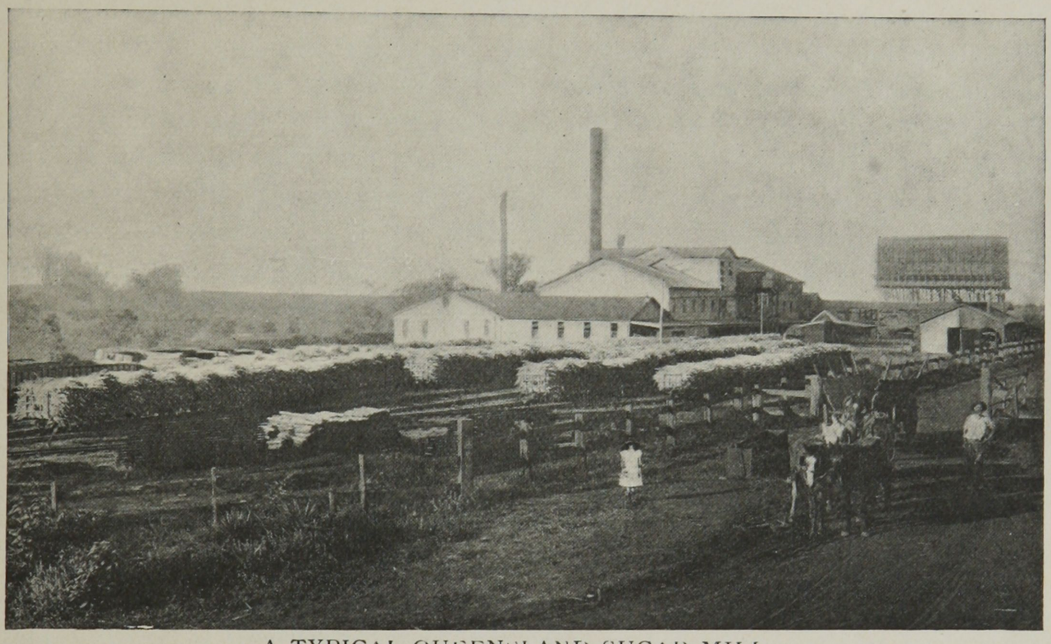
During the period from 1893 to the end of June, 1907, the total sum paid by the mills in principal and interest to the State Treasurer was £404,047, the amount of the present indebtedness being £428,505. During 1906 the Racecourse and Pleystowe and the Moreton Central Sugar Mills, which had been in the hands of the Treasurer, were returned to the ownership of the original companies, and the only mills now in the possession of the Treasurer are those at Proserpine, Gin Gin, Mount Bauple, and Nerang. The assistance rendered to the industry by the State in connection with these Central Mills has been of inestimable benefit. The departmental report for 1907 shows that the number of canegrowers supplying cane to the Proserpine Mill increased from 83 in 1903 to 165 in 1907. In the case of the Gin Gin Mill, the increase during the same 4-year period was from 47 to 80; at Mount Bauple the number increased from 44 to 54, and at Nerang from 24 to 58. This

indicates that last season there are 357 growers supplying cane to the four mills mentioned, as against 198 at the time the Treasurer went into possession of the mills. Although the increase was comparatively small at Mount Bauple, it is expected that next year there will be a much larger number, as a new tramway is being built to connect with the Government railway at Gundiah. In connection with the Nerang Mill also, tramway extensions are contemplated, which will open up a further area of land suitable for cane growing. At the Proserpine Mill there are said to be 33 new settlers, who next year will be added to the present number of cane suppliers, thus bringing it up to 198.

In 1899, the late Mr. J. V. Chataway became Minister for Agriculture in Queensland, and that gentleman having had wide experience in sugar planting naturally paid considerable attention to its requirements. For some time previously the land which had been producing sugarcane for many years, had been showing a marked decline in the yield per acre. Through the foresight of Mr. Chataway, the services of an acknowledged expert were secured in the person of Dr. Walter Maxwell, at that time Director and Chief Chemist of the Experiment Stations and Laboratories of the Hawaiian Sugar Planters' Association. Dr. Maxwell first was invited by the Queensland Government to visit the State for the purpose of investigating the condition of the sugar industry, and, if possible, suggesting some means of securing heavier returns from the cane-bearing areas. Dr. Maxwell presented his report in 1900, it being regarded as a work of very great value, and subsequently the services of this expert were secured to Queensland for a term of years, at a salary of £3,000 per annum. Since then he has done much valuable work in the way of soil analysis in the various districts, with a view to determining the manurial ingredients most required in each particular locality, and also in regard to improved methods of cultivation. Three years ago Dr. Maxwell became Comptroller of the Central Sugar Mills, and in that capacity his aim has been to secure more effective, as well as more economical, methods of sugar manufacture. One very important improvement has been the steady reduction in the percentage of sugar going to waste at the time the cane is crushed. Under the primitive methods of crushing which were in vogue in the early days, fully 50 per cent. of the sugar was thus lost; but under present conditions the loss usually varies from 20 to 25 per cent. The cost of production at the four central mills now under State control is said to be £7 9s. 5d. per ton of 88 per cent. net titre at Mount Bauple; £8 os. 6d. at Gin Gin; £8 1s. 6d. at Proserpine; and £9 8s. 9d. at Nerang, these amounts representing a material reduction on those ruling in years gone by.

One means of increasing the production of sugar lands, and extending the area which may be profitably employed in sugar cultivation, is that of scientific irrigation. For some years past a few of the larger sugar planters have been doing a great deal in the way of irrigation, and large sums of money have been expended upon the requisite pumping machinery, and reticulation plants. For example, Messrs. Gibson and Howes, of Bingera Plantation, near Bundaberg, have installed a costly plant by means of which it is possible to irrigate 2,000 acres of cane. During the dry spell experienced a few years since, this pumping machinery is said to have

been instrumental in raising 4,000,000 gallons of water daily, thus enabling 1,000 acres of cane to be irrigated, the result being a heavy yield, where otherwise it might have been a complete failure. On Fairymead plantation, also in the Bundaberg district, Messrs. Young Brothers are irrigating large areas of cane by means of tube wells, the water being pumped to the surface, and conveyed to a common centre from the area of collection by means of a centrifugal pump. Twelve of these pumping stations are at work on the plantation, and the water is distributed all over it through ditches and channels. As may be readily understood, irrigation is practised less extensively in favourable seasons than at other times, and for this reason the area thus dealt with last year was not so great as it previously had been. Official returns show that in 1906 there were 4,978 acres irrigated, principally



A TYPICAL QUEENSLAND SUGAR MILL.
The large number of cane-laden trucks give some idea of the capacity of the mill.

for sugarcane, in the Ayr district, the water being raised from lagoons on the Burdekin River. In the same year, the area irrigated in the Bundaberg district was 2,526 acres, while the area in and near Mackay was 127 acres. In 1902 and 1903 the respective areas were probably 50 per cent. greater. The Government Statistician, in his report for 1906, states "that in the two localities above mentioned, systematic and extensive schemes of irrigation have been established, based upon scientific methods, and a considerable amount of capital has been expended upon them. At both places the irrigation has been practically confined to the cultivation of sugarcane. The area coming under their influence last year embraced about two-thirds of the total area irrigated in the State."

One of the greatest problems in connection with the sugar growing industry has been that involved in the question of the labour supply. The Hon. Louis Hope, already referred to as one of the pioneer planters, is credited with having intro-

duced kanakas from the South Sea Islands to do the heavy field work inseparable from the cultivation and harvesting of the cane. Other growers doubtless did likewise, and Captain "Bobby" Towns, the founder of Townsville, who, as a shipmaster, had spent many years in cruising through the islands of the South Seas, is said to have been instrumental in bringing many ship loads of "blackbirds" from their native islands to Queensland. At all events, it is undoubted that after a few years, the kanaka population in the State had attained considerable dimensions, and an agitation for the abolition of this class of labour was set up. Legislation in that direction had the effect of restricting the operations of the industry for a time; but subsequently the importation of black labour, under strict Government supervision, was sanctioned. In more recent years, however, the protests against the employment of kanakas have been renewed, and since the establishment of the Commonwealth, not only has the recruiting of the islanders been prohibited, but the deportation of the kanakas already in Queensland was ordered and has been successfully carried out. This has not been accomplished without vigorous protest on the part of the sugar growers, particularly those in Northern Queensland, who declared that the cultivation and harvesting of the sugarcane could not be carried out satisfactorily with white labour only. However, the Commonwealth law has been observed, and during 1906 6,000 South Sea Islanders were sent away from Queensland and returned to their original homes. One consequence of this has been that many of the large estates formerly worked as sugar plantations have been cut up into small farms and leased or sold to white men, prepared to cultivate them on their own account. This comparatively recent development of the industry has been materially assisted through the action of the Commonwealth Government in giving a rebate, on a basis of £2 per ton as a maximum on sugar manufactured from cane grown exclusively by white labour. This rebate is allowed to the manufacturer, who is thus enabled to pay a higher price to the farmer supplying the cane. In 1903 the total sum paid in the form of rebate on white grown sugar in Queensland was £50,454; but in 1906 this had increased to £272,038. This last amount represented a total of 1,197,435 tons of sugarcane grown exclusively by white labour. In the Rockingham division 47 per cent. of the acreage, and 49 per cent. of the production was grown by white labour. In the Edgecombe division it was 73 per cent. of the area, and 72 per cent. of the production. In the Burnett-Wide Bay division, 81 per cent. of the area and 82 per cent. of the production; in the Moreton division, 96 per cent. of the area, and 98 per cent. of the production.

Sugar growing in Queensland offers to the new settler attractions probably greater than those presented by any other branch of agriculture. Vast areas of rich scrub lands on the Atherton table land and in other parts of the rich districts around Cairns are now awaiting development. Equally good land is readily obtainable in the Ayr and Bowen districts, while all along the coastal fringe of Queensland from the Nerang district northwards, are scrub lands of amazing fertility, capable of yielding a handsome livelihood to many hundreds of energetic and metho-

dical farmers. Naturally the profits of sugar growing vary greatly in the different localities. In some parts a comfortable living can be made by a farmer for himself and family on from 25 to 100 acres of good sugar land, while in other districts, where the rainfall is not so copious, and possibly the soil not quite so rich, a larger area is necessary. It goes without saying that the possession of some capital will make it possible for a new comer to embark on sugar growing on a larger scale than otherwise would be possible, and by installing some reliable means of irrigation to ensure a heavier and more remunerative return. But the man with



CANE CUTTERS AT WORK.

exceedingly modest means, or even with no means at all, will find it not impossible to make a start in the industry, and with every prospect of success and independence in the near future. Many hundreds of men who were brought to Queensland as assisted immigrants, and landed without a shilling in their pockets, are now comfortably settled on their own sugar farms and earning a good living with all the blessings of an independent condition. What such as these have done in the past, others can confidently look to do in the future, and it is people who are prepared hopefully and cheerfully to start in this way that Queensland needs just now.

UNDER-GROUND WEALTH

QUEENSLAND'S MINERAL FIELDS.

Golden Days—Past and Present.

By F C. Woosley.

THE stories of the "Arabian Nights," to the young mind as delightful as they are wonderful, are not one whit more strange or thrilling than the tale which a writer who delves into the early history of Queensland mining is enabled to serve up for the information, enjoyment, and bewilderment of his readers. So much like fiction do some of the chapters read, that one is almost tempted to regard them as the figment of a fertile imagination rather than the plain unvarnished facts associated with the birth of a great industry. By way of a prefatory statement, it may be remarked that this industrial story will first review the present position of mining in Queensland, and then throw a few rays of light on the past, with all its glamour and its many interesting happenings.

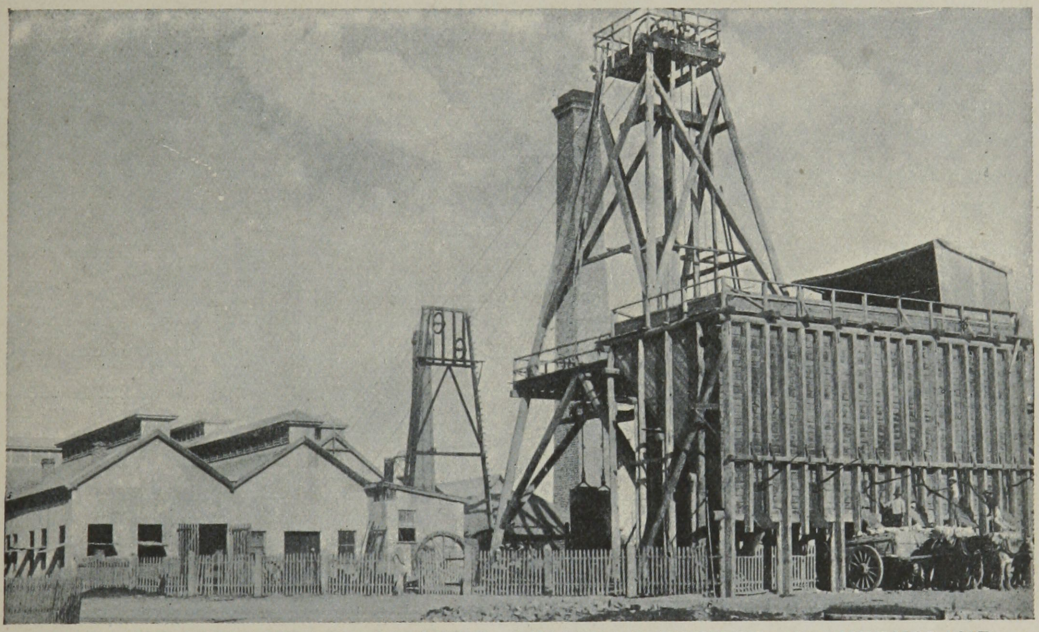
DOES MINING PAY?

At the outset, a few remarks of a general nature may not be out of place. The answering of a question sometimes necessitates a second interrogation. Applying this effective method, let those who have from time to time seriously asked whether gold mining pays answer this question: "What has gold mining done for Queensland and Australia?" This question is easily answered. In Queensland—and in most of the other states also—the squatter and the gold-miner have been the pioneers of settlement. What a difference there is between the Queensland of to-day and the Queensland of 50 years ago! From a great lone land with a few unimportant settlements—outposts really of Sydney—Queensland has developed into one of the foremost States of the Australasian group. Forests and scrubs, where naught but solitude reigned, have disappeared before the onward march of a strenuous industrial expansion. The hum of industry is now heard throughout the land. But it may be asked, what has all this to do with gold-mining? It has been said that the gold-miner is "the patron and paymaster of those engaged in a score of other industries." Even a casual study of the position convinces one that there is satisfactory foundation for the statement. But apart altogether from the assistance mining is to those engaged in secondary industries, it is directly responsible for much of the progress which has just been briefly outlined. Charters Towers, Gympie, Ravenswood, Mount Morgan, Croydon, and many other small centres owe their very existence to gold discoverers, and, notwithstanding all these substantial

monuments to the aid mining has been in the development of Queensland, there are many who believe that the industry is as yet barely out of its swaddling clothes. Reckless management—management which has spent capital on useless improvements and palatial residences for officials—has made many a venture unprofitable to individual investors, but the man who doubts whether mining has paid Queensland as a colony or State doubts his own eyesight and his own intelligence.

SOME ELOQUENT FIGURES.

The story to be told by official statistics is no less convincing than that told by the activity and solidity which characterise the great mining centres of the State. Forty-six years ago the value of the gold won in Queensland represented what would be a very modest fortune for one man—£10,000. On 31st December, 1906, the total winnings had reached the magnificent sum of £64,355,589. In 1878 the yield amounted to 270,500 fine oz. Not until 1886 was that yield exceeded,



BRILLIANT EXTENDED GOLD MINE, CHARTERS TOWERS, N. QUEENSLAND.

and then only by some 9,000 oz. The next two years showed steady progress, but in 1889 the yield leaped to 634,605 oz. The yields for the last sixteen years have been as follow:—

Year.	Fine oz.	Year.	Fine oz.
1891 ..	477,976	1899 ..	668,227
1892 ..	509,541	1900 ..	676,027
1893 ..	510,342	1901 ..	598,382
1894 ..	548,595	1902 ..	640,463
1895 ..	506,285	1903 ..	668,546
1896 ..	502,146	1904 ..	639,151
1897 ..	600,949	1905 ..	592,620
1898 ..	647,487	1906 ..	544,636

THE PRINCIPAL FIELDS.

From alluvial workings and reefs there had been won up to the end of 1906 no less than 15,145,885 ozs. of fine gold. It may be interesting to note the contributions made to this grand total by the various fields. Charters Towers (including the Cape River fields) easily takes pride of place with 5,472,386 ozs. The order of other fields is as follows:—Rockhampton and Mt. Morgan fields, 3,119,925 ozs.; Gympie, 2,311,077 ozs.; Palmer Goldfields, 1,323,095 ozs.; Croydon, 691,417 ozs.; Cloncurry, Caliope, Clermont, Paradise, and other small goldfields, 681,589 ozs.; Ravenswood, 658,376 ozs.; Etheridge and Woolgar, 486,835 ozs.; Hodgkinson, 226,105 ozs.; Eidsvold, 97,281 ozs.; Coen, 42,291 ozs.; and Hamilton Goldfield, 35,508 ozs.

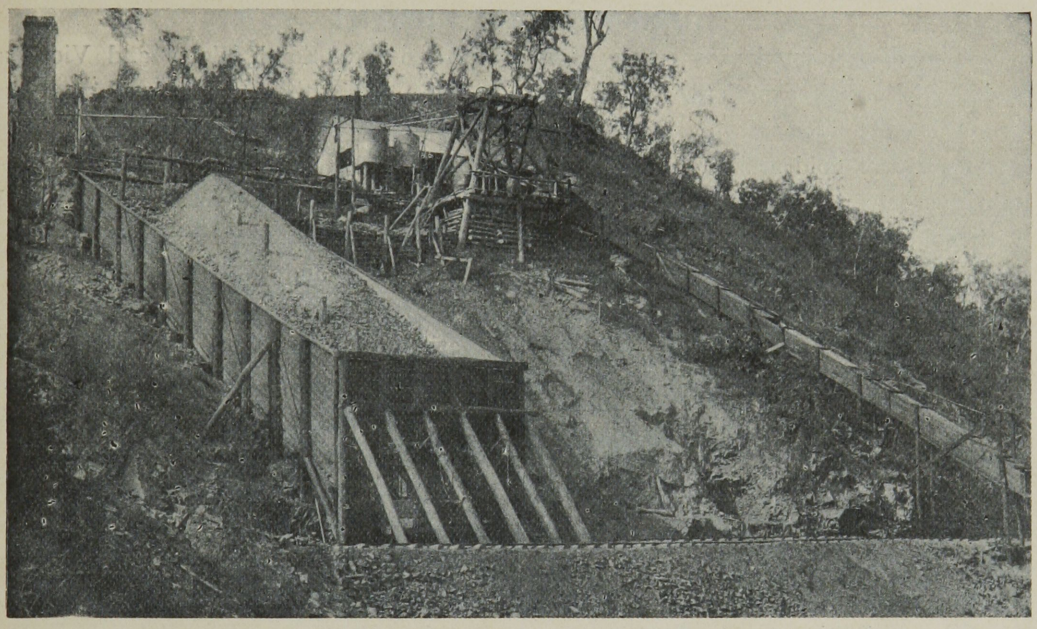
THE BASER METALS.

Figures may be dry and uninteresting as a rule, but those relating to the mineral production of Queensland are decidedly eloquent. It is almost impossible to comprehend the full significance of the figures already quoted. The alluvial digger, with his tin dish, cradle, or sluice box, did excellent pioneering work, but had his efforts not been supplemented by the employment of giant batteries, modern cyanide plants and other scientific methods of reclaiming the precious metal, the magnificent results represented by the figures given could not have been achieved. The reclamation of over £64,000,000 worth of gold in less than half-a-century is an accomplishment of which a young and sparsely populated country, such as Queensland is, may very justly feel proud. But it is not with gold mining alone this story would deal. The ranges which extend along the whole of Queensand's coast-line, and the country lying some distance to the west of these ranges also, teem with baser metals of almost every kind—copper, tin, coal, bismuth, wolfram, lead, manganese, etc. Copper and coal were being produced in small quantities in the early sixties. Tin mining did not develop to any extent until the beginning of the seventies, whilst several of the other minerals named have been mined only during the last twelve or thirteen years. But to turn again to the story told by official statistics. The total value of minerals other than gold won from Queensland mines up to the end of 1906 amounted to £16,393,714. Up to 1900 no single year had been responsible for a larger contribution to the total than £400,000. During the past six years, however, there has been great expansion. In 1901 the production jumped to £580,000, and in 1903 the total reached £800,000. The two succeeding years are credited with a further expansion. The twelve months ended 31st December, 1906, saw what can fairly be described as a magnificent achievement, the total production of baser metals eclipsing the previous year's output by over £600,000. The actual figures are:—1905, £1,200,000; 1906, £1,885,183.

TIN, COPPER, AND COAL.

An analysis of an interesting return recently compiled by the controlling department shows that tin, copper, and coal are the three industrial minerals that have found most attention in Queensland. Since 1872 tin has been raised to the value of £6,111,199, whilst to the end of last year copper and coal had been produced

to the value of £4,402,003, and £3,654,368 respectively. As is well-known, the value of copper and tin is a fluctuating quantity. The extent of this fluctuation may best be illustrated by taking the quantities and values of copper and tin raised in 1882 and 1906. The 1,724 tons of copper produced in the former year were valued at £14,982. The 10,077 tons raised in 1906 were valued at £916,546. On the basis of the price ruling in 1882, the value of this copper production would not have reached £100,000. In tin, the difference, though considerable, is not quite so marked. The 4,261 tons credited to 1882 were valued at £269,904. The 4,823 tons produced last year were valued at £490,283. Many other interesting comparisons could be worked out, but the figures already given should prove quite sufficient to impress readers with the important part the mining industry has played in the development and settlement of Queensland.



ORE BINS, IVANHOE TIN MINE, STANNARY HILLS, NORTH QUEENSLAND.

QUEENSLAND'S EARLIEST DIGGINGS.

And now to come to history. In 1864, when an official settlement was established at Port Curtis, the mining possibilities of this north-eastern portion of Australia had not even been considered. While the settlement was still in its infancy, however, it was reported that specks of the precious metal had been found in a creek bed some distance inland. At the request of the government resident, two practical diggers, who had been wrecked while journeying homewards via Torres Straits, and who had, with a number of others, reached Gladstone in an open boat after suffering the hardships and privations inseparable from shipwreck in those early days, devoted some time to prospecting the country in the vicinity of the settlement. In many places colours were found, but nothing in the shape of a rich find rewarded their labours. The discovery of even colours, however, sug-

gested that the golden wealth that was attracting so much attention towards New South Wales and Victoria might also prove a factor in the development and settlement of the North.

THE CANOONA RUSH.

Fourteen years after the establishment of a residency at Port Curtis, the principal residents of the settlement equipped a number of prospectors and dispatched them to the Fitzroy River. After a very short absence they returned to the centre with a small parcel of gold. The news spread with all the rapidity possible in those primitive days, and as a result, a stream of diggers began to pour in from not only the South, but New Zealand also. The find was made at a place known as Canoona, but notwithstanding that the ground worked by the original prospectors proved rich, there was no justification for the mad stampede which set in from all quarters.

HAD THEY BUT KNOWN!

The disappointed prospectors who returned to New South Wales and Victoria saddened by their experience at Canoona, naturally carried back with them anything but a roseate idea of the mineral possibilities of Queensland. But though this great army of gold seekers failed to unearth even sufficient of the metal to maintain themselves, it has been proved since that the whole district seemingly teemed with golden wealth. Up to the end of 1906 the Rockhampton and Mount Morgan goldfields had yielded over £12,000,000 worth of gold, and every field in the district is within a day or two's ride of Canoona. It was the fate of those first Queensland prospectors to be threatened with starvation while within easy "tramping" distance of the Mount, which has been and still is one of the gold mining wonders of the world.

A POOR MAN'S FIELD.

Two years after Queensland was established as an independent colony, gold was discovered in a gully near what is now the town of Clermont. Within 12 months over 1,000 alluvial diggers were attracted to the locality, and for quite a number of years the district proved a very profitable "poor man's field." Clermont is still contributing to the State's mineral wealth. In 1906 over 500 miners were working in the district, and that it has continued to be a poor man's field is evidenced by the fact that during the 12 months mentioned, £28,278 worth of alluvial gold was won, as against £2,272 worth of reef gold.

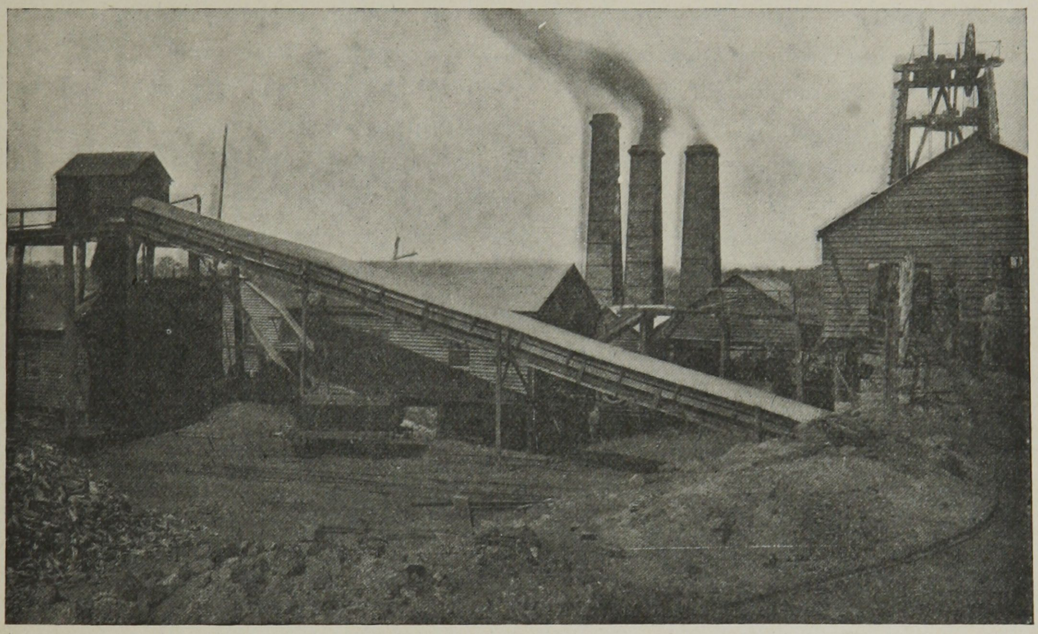
AN EARLY DIGGINGS.

It is almost impossible for those who have not had personal acquaintance with one to conceive an accurate picture of an early Queensland diggings. The mining towns of to-day are centres of considerable stability, with substantial business premises of brick and many comfortable residences—a few even approaching the palatial. A flimsy tent or a hurriedly-erected lean-to of bark was the only shelter which most of the old-time diggers knew. Very few men who lived in Australia during the fifties and sixties escaped an attack of gold fever. Not only men who had been used to strenuous manual labour, but city men—clerks, counter-jumpers, and even professional men—joined in the wild rushes which followed every discovery.

Young men nursed in the lap of comfort and comparative luxury joined in the eager quest for fortune. In some instances travelling facilities from the coast to the new diggings were limited to a coach or two—perhaps only a lumbering old waggon, oxen-drawn. But for every one who covered the dusty trail leading to the new Eldorado behind horses or oxen, a hundred others had to rely on their own pack-horses—or often on "Shank's" pony.

A VAST CANVAS TOWN.

But what is the scene at the diggings? Tent after tent is added to the primitive home of the discoverer, and before many weeks the gully and the hillsides have been converted into a vast canvas town. In the meantime several bark shanties



AN UP-TO-DATE COLLIERY, BURRUM (SOUTH QUEENSLAND).

have raised their forms, and if the ground is rich and each dish full of puddled clay yields its mite to the day's gold take, each of these drinking places will, once the sun dips behind the western hill, and the evening meal of damper, corn beef, and billy tea is over, be the rendezvous of a careless, rollicking, dare-devil lot, such as is to be met with only in the primitive mining camp remote from the large centres of civilisation. And if they made night noisy with their revelries, what cared they? The lust for gold, the mad desire to grow rich in a few weeks or months, blunted all finer instincts, and most-wheres might was right. Yet amidst it all, there was some good comradeship. Many a sick miner found in his weather-beaten associates all the sympathetic tenderness of a hospital nurse. "Jack's down to it; we must look after him—pull him through." That was the good-hearted comradeship which provided a touch of refreshing colour to a picture which otherwise would have been sad, severe, and sombre—perhaps even repulsive.

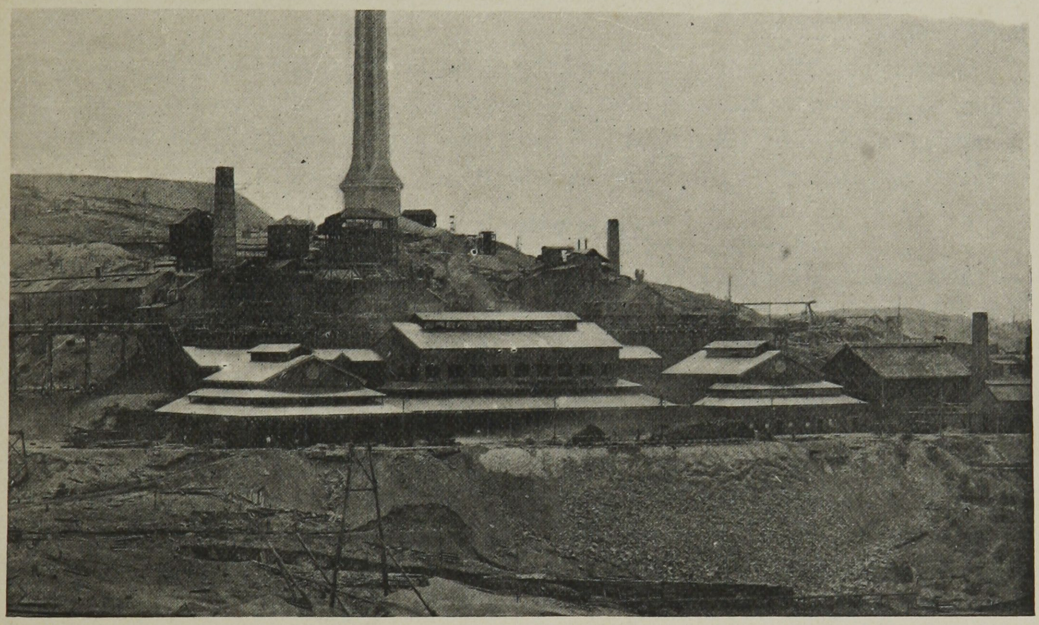
AN OLD DIGGER'S STORY.

Years ago an old man, who had knocked about the diggings a good deal, but had, through all the stress and strain of a hard life, never lost hold of the faith gathered from his best friend—his mother—sketched in bold outline for the information of the writer a scene he had witnessed in one of the wildest mining camps ever pitched in the far North. The story was told in a slab farm-house at Cleveland. The old man, whose hair and beard had been bleached white with the ravages of time, would occasionally take several vigorous draws at an old short-stemmed clay, and lose himself for a few moments in a reverie. "Over many incidents of my early life," he said, "a mist hangs. I am getting near the borderland, and I suppose my memory is failing. But one scene so impressed me that it comes before me as vividly to-day—after over forty years—as though it happened only a few days ago. I see two shanties standing within ten yards of each other. The bright beams from the moon light up a small coterie of drink-sodden diggers. They had been lucky, but they knew only one way to dispose of their easily won gold—to drink it. Some of the men had not touched pick or dish for several days. They had been on the spree, and on the evening I speak of the inevitable quarrel was brewing. Angry words were followed by fierce blows, and for almost an hour the scene between and in front of the shanties was 'hell let loose.' Thirty yards or so away a small tent showed up silvery-white in the moonlight. In front a great log was burning slowly, and now and again a shower of sparks would cast a lurid glare over the surroundings. A digger and his only child—a little maid, whose mother had died some weeks before, and had been buried under the shade of a giant gum—were seated on upturned kerosene tins close to the fire. The man, who was recognised as one of the luckiest diggers on the field, was playing a concertina, and the child was singing. The young voice was feeble but clear. The first snatch I caught of her song was the well-known line: 'Where every prospect pleases and only man is vile.' How appropriate were those words! The mining camp was in a little gorge with rugged tree-clad hills on either side. It was one of the most picturesque spots imaginable. But that evening the marring effects of that almost demoniacal conflict raging outside the shanties appeared to hang like an impenetrable gloom over everything. Memory is her own mistress, and she has not allowed me to forget that scene."

MOUNT MORGAN.

Reference has been made to the earliest discoveries in the central districts. The gold mining history of that portion of Queensland would be incomplete were not more than passing mention made of that wonderful property which has already been described as the mining wonder of the world—Mount Morgan. One of the Morgan Brothers, after whom the famous Mount is named, has placed on record a statement with regard to the discovery and subsequent development of the vast deposits of gold-bearing ore which are now being treated by what is probably the largest and most scientific mining plant in the world. The following is a resume of that unchallengable statement:—

In 1864 a Scotchman named Donald Gordon took up 640 acres of land, which included in its area the Mount, and commenced breeding cattle on a small scale. During the drought of 1876 Gordon lost most of his stock, and was forced to try his luck in the Gulf of Carpentaria. "Sandy" Gordon, who resided on his brother's selection for some time, discovered, while riding over the adjoining country, what he thought at the time, was a silver outcrop. In 1882 Sandy, in company with two of the Morgan Brothers, set out on a prospecting trip, with the primary object of examining and testing this supposed silver lode. The examination proved unsatisfactory, and heavy rain coming on, the party were forced to seek the shelter of an old hut on the Gordon selection. While one of the Morgans attended to the camp,



COPPER REDUCTION WORKS AT MOUNT MORGAN, CENTRAL QUEENSLAND.

the other brother, with Sandy Gordon, prospected a few of the neighbouring gullies. In one of the gullies Morgan was attracted by a big boulder. He knocked a splinter off the stone, and noticing there was mineral in it, put it in his pocket. Ascending the hillside, he picked up a number of black stones. Subsequently the party crushed some of the stone, and panned it off on the bank of the creek. A yellow residue was left in the dish, but it represented so large a portion of the material crushed, that the prospectors could not believe it was gold. Sandy Gordon was quite positive that the material in the dish was copper ore.

After a few days had been spent in further prospecting, Gordon was dispatched with samples to Mount Wheeler. A half-way hotel tempted, and Sandy succumbed. This was the end of his connection with the discovery. Not many days later the two Morgan Brothers joined a third brother in Rockhampton. A whole day was spent in the central capital crushing and panning off a number of the samples. The result was such an astonishing return of gold, that the three brothers hastened back to the place, and after securing all the ground they could, formed a camp. For

several months they carefully tested the property. To travellers they pretended to be prospecting for copper. The vastness of the find led them at length to divulge their secret to Mr. T. S. Hall, who was then managing the Rockhampton branch of the Queensland National Bank, and Mr. W. K. D'Arcy, a Rockhampton solicitor. Some samples were taken off the ground and sent to Gympie for assay. Result:—between 3,000 and 4,000 oz. to the ton. Such is the early history of golden Mount Morgan. How the property was subsequently floated into a company, with a nominal capital of one million pounds, how after great and varied mechanical difficulties had been overcome a boom set in; how shares were driven up to the extraordinary price of over £17, and how ruin fell on many speculators as a result of the inevitable reaction, are to Queenslanders, and to Australians generally, well-known historical facts.

As an interesting piece of formation it might be mentioned that one of the original holders who was possessed of 200,000 shares found his scrip at one time increasing in value by one pound per day. His capital was therefore increasing at the fabulous pace of over a million pounds sterling per week.

THE MOUNT TO-DAY.

But what has to be said of the Mount Morgan of to-day? The popular idea is that the Mountain is charged with gold. As is often the case, the popular idea is quite wrong. Mount Morgan in spite of its brilliant past is to-day a low grade proposition. A visit to the Mount cannot fail to impress one. Standing at the top of a deep cut and looking over the side of a great hill, the visitor gazes on what is undoubtedly the most striking industrial scene in Australia. Substantial buildings and giant chimney stacks cover many acres. A word picture is useless; a personal visit alone can give any idea of the vastness of the operations and the absolutely perfect system which reigns everywhere. When the mantle of night falls, and countless electric lights illumine the vast works, the scene is almost bewildering. Once seen it is not easily forgotten. Few will cavil at this special attention having been paid to Mount Morgan.

THE DEE RUSH.

In face of comparatively recent happenings it is not unreasonable to suggest that Queensland may experience in the future gold rushes no less sensational than those which have occurred in the past. Of the 427,000,000 acres which comprise the State, a considerable area still waits for the prospector. One might well have thought that the country immediately surrounding the large fields had long ago been thoroughly tested. The most sensational discovery of the last few years, however, was made on the Dee River, right at the back door of Mount Morgan. In 1903, a rich patch was struck in this locality, and within two days there were over 2,000 men on the ground. Claims were pegged out over the whole country side.

GYMPIE AND CHARTERS TOWERS.

Up to the present no reference has been made to the two principal mining centres of the State—Gympie in the South, and Charters Towers in the North.

Both centres speak in unmistakable language of the great value mining has been to Queensland. Taking the fields in chronological order, Gympie must find first attention.

Towards the end of the sixties, dark clouds of financial gloom hung over Queensland. A great wave of financial depression was at the time sweeping over the old country, leaving in its wake considerable ruin. London has ever been the financial heart not only of the United Kingdom, but of Britannia's younger communities across the seas. It was not strange therefore that the wave already referred to continued its havoc beyond the borders of Great Britain—rolled round the world, in fact carrying with it financial catastrophe, and a season of unprecedented anxiety. Queensland did not escape. But it is with the bright sunshine which shattered the gloom that we are most concerned just now. Gympie broke out, and the dark foreboding clouds which threatened to deluge all enterprise, disappeared like ice under a summer's sun. The discovery of alluvial gold at Gympie, was quickly followed by the discovery of gold bearing reefs. The caps of these reefs yielded in many instances phenomenally large returns. Some parcels of stone were dollied and then panned off for a yield approximating 1,000 oz. to the ton. It is not strange that as a result of these discoveries—

"The land which laid like a giant asleep,"

realised Geo. Essex Evan's prophecy, and became transformed into a land—

"Where the miner sleeps unstirred by the ceaseless monotone,
And crash of the stampers night and day at work on the milk-white stone."

Of Charters Towers much could be written. The field may be best described perhaps as the largest producer, and the largest employer irrespective of yield in the State. A simple calculation shows that the value of gold won per man employed on three of Queensland's principal gold-fields during 1906 was as follows:—Charters Towers, £204, Gympie, £280, Mount Morgan, £745. The large return per miner credited to Mount Morgan can safely be attributed to the wonderful manner in which the ore is treated. As already stated, the plant which has been evolved at Mount Morgan is the finest in the world. The difference between Charters Towers and Gympie is accounted for to some extent no doubt by the easier methods of treatment possible on the latter field. In 1906 the Towers, in conjunction with the Cape River fields, contributed 205,632 ozs. to the State's gold production, whilst the total yield credited to these combined fields amounts to no less than 5,472,386 ozs. When it is stated that Mount Morgan and Gympie in conjunction have not exceeded this total the magnificence of the achievement will be better understood. Since 1892, only once has the annual production of the Towers mines fallen below 200,000 ozs. In the record year the field was credited with well over 300,000 ozs. Nothing more need be said of Queensland's premier gold-field. The past has been successful; there is no apparent reason why the future should not be even more successful.

Did space permit, much interesting information could be given concerning the many other gold fields of the State—the wonderful returns which dish and cradle yielded to the thousands of diggers who were congregated on the Palmer in the late seventies and early eighties; the steady production which has gone on year after year at Croydon and Ravenswood, the rise and collapse of the Eidsvold field. Each

of the fields mentioned has provided an interesting chapter in the gold mining history of Queensland. The possibilities of the Peninsular gold fields is another theme which would afford ample scope for elaboration. But gold mining, with its glamour and excitement, must now give way to that branch of the industry which at present is so full of promise—the production of copper, tin, and other industrial metals.

COPPER, TIN, AND COAL.

Valuable as her great auriferous areas have been to Queensland, a large share of the devolopment that has taken place around Stanthorpe and in many of the Central and Northern districts is attributable to the discovery of tin, copper, and other minerals apart from gold. Fluctuations in price have on several occasions well nigh paralysed this branch of the State's mining industry, but during the past few years the ruling prices have been such as to stimulate production.

The fact that Queensland is rich in copper was established many years ago. Copper was being worked at Peak Downs three years after Moreton Bay changed its name to Queensland. A company was formed in 1862 with a nominal capital of £100,000, about one-third of which was subscribed to work a mine in that district. Notwithstanding heavy freight to port, and a generally expensive system of working, the property paid its shareholders in the course of fifteen years considerably over £200,000 in dividends. Subsequently, copper was discovered at Cloncurry, Mount Perry, and several other localities. From 1878 to 1900, the industry was at a low ebb. In 1901, the production stimulated by more favourable prices, sprang to 3,061 tons, valued at £194,227. Peak Downs, Mount Perry, Cloncurry, suffered alike from the weak market, but now full advantage is being taken of the improved position, and all the old fields and several new ones are being developed with all the vigour circumstances will permit.

THE STATE'S TIN DEPOSITS.

Next to alluvial gold, the mineral which represents most fascination to the wandering digger, whose outfit consists only of a tin dish, pick, and shovel, is stream tin. The mineral can be dished off rapidly, and if good ground is being handled the work pays handsomely. So far as can be learned from official records, the first locality in Queensland worked for alluvial tin was Quart-pot Creek, Stanthorpe. In 1872, quite a rush set in to this locality and the claims pegged out spread over many miles of water-courses and gullies. Everywhere in the neighbourhood tin was abundant. Within three years of the first discovery ore to the value of £715,000 had been won. In 1878, the price of tin fell to £25 per ton, and as most of the ore which could be recovered cheaply had been exhausted, the industry in the district began to languish. Subsequent to the Stanthorpe discoveries, rich deposits of tin ore were found in the Herberton and Croydon districts. But here, as in the Southern part of the State, operations flourished or languished just according to the price ruling for the mineral. It is satisfactory to note that there is now renewed activity in the industry.

WALSH AND TINAROO MINERAL FIELDS.

Whilst the application of dredge mining has revived the industry at Stanthorpe to some extent, the bulk of the present production is being won on the Walsh and Tinaroo field, Northern Queensland. The field in question comprises about

1,000 square miles, and during the past few years has been the scene of considerable activity. Herberton, Stannary Hills, and other large tin producing centres are included in the area, and to the prosperity of the field is largely due the importance Cairns has achieved as a port. One feature of recent operations on the field was the striking of a large body of ore at a depth of over 1,000 feet. This provides some index to the depth at which tin ore may be found in Queensland. When the last official report was prepared there were ten mills on the field treating tin ore. In addition to a large number of men employed at the various mines, it is estimated that fully 1,000 miners are engaged in alluvial workings. Referring to this field, the Under Secretary for Mines writes:—"In so far as tin mining in the Walsh and Tinaroo field is concerned, the year 1906 has strengthened the position and broadened the outlook. At no time has the industry afforded such assurance of stability and progress."

OTHER INDUSTRIAL MINERALS.

Among industrial minerals mined in Queensland, other than the two already referred to, are wolfram, molybdenite, bismuth, antimony, manganese, graphite, and ironstone. The first four mentioned are mined almost exclusively in the Herberton district. In 1906, these minerals were mined as follows:—Wolfram, 768 tons (£64,136); molybdenite, 129 tons (£17,034); bismuth 6½ tons (£1,882); antimony ore, 530 tons (£6,917). Deposits of manganese are fairly common in Central and Southern Queensland. Ironstone is being extensively mined in various parts of the State, but the produce is used almost entirely as fluxes for smelting purposes.

QUEENSLAND'S COAL DEPOSITS.

Only one industrial mineral remains to be dealt with—coal. England, it is said owes much of her greatness as a manufacturing country to her iron and coal deposits. It is a happy circumstance that Queensland possesses the same two natural assets in an abundant supply. At present coal mining operations are practically confined to the West Moreton and Wide Bay districts, and two small centres on the Darling Downs, but the State's coal measures are by no means limited to these localities. Coal has been proved to underlie a large portion of Southern and Central Queensland, and it is generally believed that deposits of the mineral extend along the whole eastern seaboard. Coal was practically the first mineral to be systematically worked in Queensland. Even in 1860, when Brisbane was little more than an outpost of Sydney, there were collieries on the Brisbane River. In the year mentioned, these coal mines produced 12,327 tons. The development from that time has been gradual but continuous. By 1882, production had increased to 74,436 tons, whilst ten years later the output had still further increased to 265,086 tons. In 1901, production passed the half-million tons mark. From that year the figures remained practically stationary until 1906, when the collieries of the State by yielding 606,772 tons, established a record. From the year of separation to December, 1906, the total production approximated 9½ million tons, of an estimated value of £3,654,368. As a finale, it may be remarked that there are opportunities in Queensland for the profitable employment of unlimited capital, in the further development of any one of the various branches of the mining industry.



THE STATE A HELPER.

How Settlers are Educated.

By E. J. T. Barton.

"GO on to the land, young man," it is a time-honoured advice, and Queensland offers many shining examples of its wisdom. But in a new country, Nature, like a teasing mistress, often snatches away with the left hand what she seems to offer with the right. She tests her lovers, lest gifts too easily won should be but lightly valued. Thus between the new comer from some distant shore, and the smiling homestead of his dreams, lie obstacles to be overcome, lessons to be learned, patience to be exercised, and many a month's steady, honest toil. The Government of Queensland does not conceal these facts, but recognising in the bona fide settler the highest type of colonist, seeks ever to make the path easier, and to increase the prospects of success.

The prosperous settlers of to-day, looking back on their early struggles of thirty or forty years ago, contrast enviously the advantages offered to the new arrival in these times. They say truly that health and strength, coupled with intelligent industry, when applied to present conditions, has far better hope of reward than in former times. Yet they made a competence for themselves, though in many instances starting as farm labourers without capital. What ought not the men of to-day to achieve in view of their greatly improved opportunities?

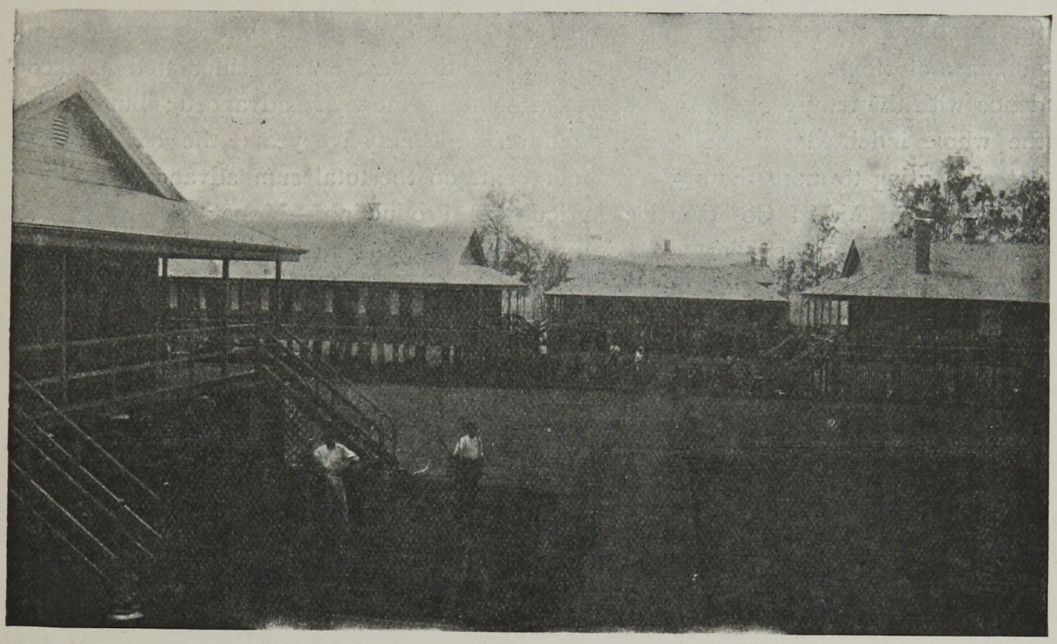
LANDS INQUIRY OFFICE.

At the outset of his career in Queensland, the intending settler has the advantage of gratuitous information at the Lands Inquiry Office, in George Street. Here maps of all land open for selection are available, and the officers are always ready to afford the benefit of all information they possess about any part of the country Whatever may be the requirements of the visitor, he can usually be put on the right track. Though it is of course impossible to satisfy all demands, there is no unnecessary delay in finding out what land is available; also, within certain limits, what it is suitable for, and the terms under which it can be obtained.

Close by, in the same building, are the offices of the Intelligence and Tourist Bureau, where useful information as to the means of access may be obtained, and where a fine collection of photos of Queensland scenery is open to inspection.

RAILWAY CONCESSIONS.

In this connection, also should be mentioned the railway concessions offered to the bona fide settler. Every person who actually takes up agricultural selection is entitled to—(a). A refund of railway fare to and from the nearest railway station when inspecting the land he intends to select; (b). A free pass for himself and family on to the railway station nearest to his selection; (c). Free pass by rail for ordinary



THE AGRICULTURAL COLLEGE, GATTON.

furniture, agricultural implements, seed, and one dray, with set of harness; and (d). A reduction of 25 per cent. on carriage of building material to be used in improving the selection; this concession to apply also to live stock to a limited extent, and to such other articles as the Minister for Lands may consider it necessary for the selector to use in improving his selection. These concessions must be availed of within six months from the issue of license to occupy the land.

THE "SINEWS OF WAR."

Having fixed the location of his future home, the young settler may very likely find himself at a loss for working capital to properly improve his holding. What can the Government do for him? In one respect his difficulties have been foreseen; for knowing the impossibility of carrying out at once all the needful improvements, the State has instituted what is known as:—

The Public Estates Improvement Fund.—The general object of this fund, out of which something like £50,000 has been expended, is to make roads and other necessary improvements, such as clearings, water tanks, and bridges, which are of

general benefit to the area to be settled, and which can be more readily carried out in advance of settlement than by leaving them to individual farmers. Land which would be altogether inaccessible without some such preparation has thus been opened up, and the cost, when divided amongst the men taking up the land is comparatively insignificant, especially as the payments are spread over a series of years. Last year, 24 miles of road construction was completed, and 226 miles cleared without formation; one bridge was built, several wells and a bore were also put down in places where water was scarce. The total area benefited by this expenditure was 419,116 acres, the outlay being over £17,000.

Agricultural Bank.—Under this Act, advances are made by the Government for carrying out permanent improvements, or for paying off liabilities on the land, purchase of stock, etc. The rate of interest and repayments is calculated in accordance with the nature of the purpose for which the money is advanced; but so that the whole indebtedness shall be worked off in twenty-five years, the contributions not amounting to more than £3 11s. per cent. on the total sum advanced.

Loans in Aid of Co-operative Agricultural Production.—Money is advanced on advantageous terms, similar to those under the Agricultural Bank Act. The object is to assist in the establishment of works necessary for the marketing of raw products. Thus on proper security, money would be advanced towards the erection of flour mills, butter factories, machinery for the preparation of fibres, coffee, tobacco, arrowroot, or other raw products. Hitherto, the advances have been restricted to butter factories and creameries, for which over £3,000 has so far been lent, this provision of the law having been but a short time in operation.

Sugar Works Guarantee Act.—Something like half a million of money has been advanced to groups of cane farmers for the erection of sugar mills, and the construction of the necessary tram lines for bringing in the cane. In several instances the amount has now been fully refunded; but in others the mills are at present in the hands of the Comptroller, who is working them in the best interests of the Government, and of the cane growers who made themselves liable for the repayment of the sums advanced. It is probable that with favourable seasons, the amounts due will be paid off, so that the mills may become the absolute property of the cane growers.

Government Savings Bank.—This is an institution valuable alike to the settler and the artisan; and the general prosperity of the community is illustrated by the fact that the total deposits represent £8 7s. 6d., for every man, women, and child in Queensland. Four and a half millions are held by 92,912 depositors. The rate of interest paid is three per cent.; but no depositor is allowed to draw interest on a greater sum than £200.

LAND FOR SETTLEMENT.

This is not the place for a review of the very liberal land laws of the State. But amongst aids to settlement, it is needful that mention should be made of the various measures for the acquisition of land for closer settlement. In earlier days, before the growth of population made agriculture on a large scale possible, many large areas of the finest land were taken up for grazing purposes. As time goes on,

the demand for land in smaller holdings becomes increasingly insistent. As a consequence, in some cases, the owners are voluntarily cutting up the large estates, and selling to the small man on extended terms. But this has not always been sufficient to keep pace with the demand. Accordingly other measures have been adopted.

Agricultural Lands Purchase.—During the past thirteen years, twenty-three estates have been purchased, aggregating 381,000 acres. These have been subdivided into farms of suitable area, and sold to men who would undertake to reside on them. Payments demanded were extended over a term of 20 years, each instalment being made up of interest and principal, so that in course of time the whole



MACHINERY SHED AND SILO ON A QUEENSLAND STATE FARM.

liability to the Government would be discharged. Altogether 1,786 farms have been taken up in this way, and it may be added that the payments have been remarkably well met. It is anticipated that the amount received will eventually compensate the Government for the outlay, though the object kept in view is rather to settle people on the land than to make any direct profit out of the transaction.

Closer Settlement Act.—This Act confers on the Government powers of compulsory purchase at a valuation of land required for settlement, and is intended to widen the scope given under the Act above quoted. Land not exceeding in value half a million sterling may be purchased in any one year. Already one of the largest and finest estates on the Darling Downs has been brought under the operations of the Act, and the land will be made available for selection at an early date. A term of twenty-five years is allowed the selector in paying off the price of this land, instead of twenty years as under the Repurchase Act. Another notable feature is that whilst the payment of interest and principal for the first year is at the rate of £10 for each £100 of the purchasing price, nothing will be required during the second, third, and

fourth years, after which, the charge will be at the rate of £8 2s. 7d. for each £100 each year, until the whole has been paid off. The idea being that the settler shall have the opportunity to devote all his energies towards making good his footing on the land, once he has proved his bona fides by the original payment.

AGRICULTURAL KNOWLEDGE FOR SETTLERS.

"Knowledge is power" for the settler as well as for men in other walks of life. The Government recognise this, and various measures are adopted both to collect and to disseminate the necessary information. A few of these may here be briefly described.

State Farms.—What are known as State Farms have been established in various parts of the State. Westbrook (near Toowoomba), and Hermitage (close to Warwick), are the two Darling Downs stations. At Westbrook, experiments in the cultivation of varieties of apricots, pears, apples, figs, grapes, etc., have been conducted together with the cultivation of introduced grasses, and farm and garden crops generally. Considerable attention has been paid to the raising of suitable varieties of wheat, not only at Hermitage, but also at the State farm at Roma, in the Maranoa district, about 300 miles west of Brisbane. Another State farm is at Biggenden, in the Burnett district. This is a newer district than those already mentioned, so far as agriculture is concerned, and the experiments are of a more varied character, embracing fodders, cereals, fruits, and grasses. These afford the settlers in the neighbourhood an excellent means of judging as to the crops and varieties suitable. A similar remark applies to the Gindie State farm, in Central Queensland, 178 miles from the coast. At this latter place, not only are crops produced, but cattle, pigs, and poultry are kept.

One good result of the work of the Government institutions, not only here but in other parts of the State, is that as only the best strains of domestic animals are kept, the State farms are able to supply suitable stock for farmers desiring to breed, and thus the average quality of the stock is materially improved.

The Kamerunga State nursery, a few miles out of Cairns, North Queensland, is a tropical garden of economic plants, and its value to the district, and indeed to the whole of tropical Australia is incalculable. Much has already been done there to encourage the growth of coffee, and if ever the production of rubber gains a footing on the northern coast of Queensland (for which both soil and climate are believed to be eminently suitable), it will be largely due to the work of the Kamerunga State nursery. Other products known only in their commercial aspect in other parts of Australia, may here be seen growing luxuriantly. Amongst these may be mentioned vanilla, cardamons, various useful fibre plants, bread-fruit, tea and cocoa. Special work has also been done in the growth of tobacco and cotton of numerous varieties, also the kapock fibre tree. The free distribution of plants to persons likely to make good use of them is a special feature of all the State farms, and particularly of those in the more remote districts, where private enterprise in the dissemination of useful plants and seeds has not full scope.

"Queensland Agricultural Journal."—This is an illustrated monthly magazine, issued by the Government, for the express purpose of disseminating amongst farmers

throughout the State the results of experiments at the State farms, and of the investigations of the experts employed in various branches of agriculture. It is distributed free to applicants, the only payment required being a small fee to cover postage.

TRAINING THE YOUNG MEN.

The Agricultural College at Gatton, sixty miles by rail from Brisbane, is the most important educational institution conducted in the interests of agriculture. Here between fifty and sixty young men are put through a three years' course, embracing all the principal branches of dairying and general agriculture, both practical and theoretical. Their time is divided between the lecture hall and the field. A fine stud of dairy cattle and pigs, including all the leading varieties is maintained, so that the young farmers have every opportunity of becoming acquainted with what is best in the shape of live stock. The progeny of these animals are sold at reasonable prices to farmers, as in the case of the State farms, and thus the quality of the herds of the State is steadily improved. Experiments in growth and curing of fodder, the feeding of cattle and pigs, the use of manure, and the milking qualities of the different breeds of cattle, are conducted at the college, and the results are published in the annual report of the department. Mention should also be made of the egg laying competitions, for which entries are received from all parts.

To pursue the educational idea, it may be mentioned that a large number of the State school teachers, particularly from agricultural districts, have availed themselves of the opportunity to take a short course at the Gatton college, attending during the school recess for that purpose.

It has latterly been recognised that many who might desire to obtain agricultural knowledge, have neither the time nor the money to attend the college, though the fees are kept very low. A system of apprenticeships have been adopted at the various State farms, under which lads are able to obtain a course of training, and at the same time receive wages for what they perform in the way of labour on the farm. Arrangements are also being made for evening classes, which can be attended by young farmers who have their own living to get, and who could not leave the farm, even for a few weeks.

AGRICULTURAL EXPERTS AND THEIR WORK.

In no branch of farming work are the results of Government assistance so marked as in the dairying industry, now one of the most important in the State. It was the Department of Agriculture which first aroused Queensland farmers to the possibilities of this enterprise. A travelling dairy equipped with up-to-date appliances, such as separator and box churn, which were then novelties to the average farmer of this State, was sent through the country districts, and much useful instruction was given in both butter and cheese making. Since then, the advent of the butter factory has relieved the farmer of all responsibility beyond the production of cream. But persistent efforts have been made by the Department to raise the quality of the product, not only by the inspection of dairies, and the grading of butter, but also by twice sending to England and Scotland, a qualified man to select stock of the best quality for any farmer desirous of improving his herd. The herds belonging to

the Government have been greatly improved by the same means. Not only at the distinctively agricultural institutions, but also at the Asylums for the Insane, and the principal Penal Establishment, cattle and pigs of high quality are raised, and the progeny, beyond immediate requirements, are sold. Several of these institutions, including also the Westbrook Reformatory for boys, have given valuable demonstrations of ensilage making.

Agricultural Chemist.—A qualified agricultural chemist with staff is maintained for the benefit of the industry. His work covers a very wide range, from analysis of soils and rocks, to the examination of milk, cream, and other farm products, whilst of late a most elaborate set of experiments has been conducted to determine the relative values of different varieties of wheat for milling purposes. The value of fodders and green manure also forms the subject of investigation, with many others of equal importance.

Instructor in Fruit Culture.—In a State like Queensland, where every fruit known to man can be cultivated in the open air in one part of the State or another, the position of the fruit expert is of great importance. Amongst the principal crops are pineapples on the coast, near Brisbane; oranges, lemons and strawberries, on the rich volcanic soils immediately to the northward; bananas and mangoes in the tropical belt still nearer the equator. On the tableland to the westward, and chiefly near the southern border, the deciduous fruit trees of a temperate climate flourish. All these claim the attention of the instructor, who as an enthusiast in his subject, devotes attention not only to the diseases and insect pests with which these products may be afflicted, but also seeks to promote the more extended cultivation of all the most approved varieties.

Entomologist and Vegetable Pathologist.—Closely associated with the success of agriculture in any country is the study of means to combat the natural enemies of the plant life, whether in the dairy, the orchard, the sugar plantation, or the wheat field, subjects for the attention of the entomologist are constantly arising.

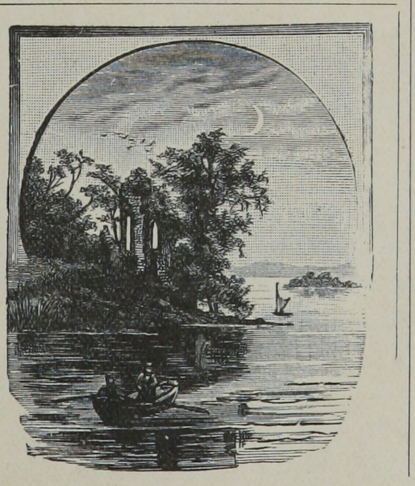
Bacteriologist.—A highly qualified microscopist and bacteriologist is constantly employed not only in investigating disease in stock and plants, but also in cultivating the means by which they are to be combated; and the high state of health generally enjoyed by the live stock of Queensland as a whole, as well as the success which has attended the efforts to combat certain introduced diseases, has been largely due to the attention paid for many years past to this subject. Here the interests of the farmer and the pastoralist are identical. A highly qualified specialist in this branch of the work has recently been engaged in London; there are indications that even more will be done in this direction than in the past.

Poultry Expert.—For several years past an experienced officer has been engaged to travel through the agricultural districts, lecturing on the advantages of poultry breeding, and the qualities of the different varieties. The effect has been seen in a steady improvement in the class of bird in use, a result to which the egg-laying competitions have largely contributed. Eggs are shortly to take a place amongst

our exports, and already some important trial shipments have been sent to Canada and England. The Government have arranged to advance 75 per cent. of the value of approved eggs forwarded to them for export.

Cotton and Tobacco.—A good deal of work has lately been done also to encourage the growth of both tobacco and cotton. A strong demand exists for cigar leaf, which is a highly valuable product, and the Government expert has been engaged in pointing out districts where it is likely to flourish, as well as in giving general instruction for the cultivation of the crop. Cotton is an industry which has also received the benefit of expert assistance from a Government official, and there is every prospect that in small areas it will prove remunerative as an alternative crop to farmers.

This is, after all, but a hasty sketch of what the Government is doing to promote the advance of agriculture in Queensland. In dairying alone sufficient has been done to absorb the whole of the space allotted to this section. The efforts put forth to open up markets have been particularly useful to this product, and the dairy farmers of Queensland have benefited to the extent of many thousands of pounds by the subsidy paid to the Orient Company to induce them to send on their mail steamers to Brisbane every fortnight, thus giving the producers of this State the advantage of direct, and above all, regular communication with the great markets of the world. A continuance of this advantage is ensured under the new mail contract with the Orient Company.



What Successful Settlers think of "Sunny Queensland."

MR. Joseph Lester, from Port-a-down County, Armagh, Ireland, has been in the Laidley district (Queensland) for 35 years. He arrived in Queensland with £3 in his pocket, and is to-day worth thousands of pounds, all made by hard work. He would not leave Queensland on any consideration. He is of the opinion that the country cannot be beaten.

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Mr. R. J. Blake was a railway employee in Doncaster, Yorkshire, England. Now he has a farm in Blenheim in the Lockyer district (Queensland). He is engaged in agriculture and grazing, and has been most successful. Has brought up a family of 12 sons and 2 daughters. Thinks Queensland a splendid country for the young farmer from Great Britain.

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Mr. Alexander McAlister came to Queensland 25 years ago from Cosey, County Antrim, Ireland, and now owns the "Cosey" Farm at Forest Hill, Lockyer district. He had very little money when he arrived in Queensland, but by careful saving, while working for other people, has secured a fine property. He is of opinion that any man who comes out from the old country and goes on to the land cannot help making money.

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Mr. Luke Miles was a brick maker in Wheatley, Oxford, England. He came out to Queensland and went on to the land. Has now sufficient money to retire. He is of opinion that any able-bodied man from the old country could do the same in Queensland now, and easier than he did it. Has brought up a family of eleven children.

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Mr. George Walker, from County Armagh, Ireland, has been 35 years in Queensland. He started with very little money, and by hard work has become the owner of 1,600 acres of fine land on the Darling Downs. He says that what he has done others can do.

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Mr. J. Gillann, born in Oxfordshire:—"I would strongly advise young farmers in the motherland to come out to Queensland, as there is no other country on earth

where men of determination can do so well. The opportunities are such, that whether a man has capital or not, he can succeed."

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Mr. Andrew Small, born in Newburgh, Fifeshire, Scotland:—"I arrived in Queensland in November, 1862, and at present occupy grazing country in the Clermont district. I lease 200 square miles of country, but hold 2,300 acres as freehold. You ask me whether I am satisfied with success Queensland has brought me. I say 'Yes.'"

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Mr. Vincent Creagh, M.L.A. for Croydon:—"Before many years Queensland will assuredly be the star of the Australian Commonwealth."

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Mr. E. C. Earl, grazier in the Cairns district (North Queensland):—"Queensland, with her vast mineral wealth, extensive pastoral operations, and wide-spread agricultural activity, must become one of the most prosperous States of Australia, and in the near future, with cheap electrical power, a big manufacturing State. Any man willing to work much succeed in Queensland."

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Hon. E. H. T. Plant, M.L.C., Charters Towers (North Queensland):—"I believe there is a great future for Queensland. We want more people in the country to develop it's great resources."

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Mr. Eric E. Watson, M.I.M.M. (London); F.I.C., Metallurgical Engineer of Aldershot (Queensland):—"After several years of experience of Chili, Peru, and the Argentine, I consider Queensland the richest all-round mineral country in the world. I am satisfied with my success, and hope to meet with still more."

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Mr. F. M. Armstrong, a New Zealander, who has been residing in North Queensland for 21 years:—"Under the hand of God, and notwithstanding attractions of other countries, Queensland must forge ahead."

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Mr. W. E. Curtis, born in Cork, Ireland (42 years in Queensland):—"The future of Queensland cannot fail to be prosperous. It is solidly based on primary industries and manufactures."

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Mr. W. A. MacVean, who has been raising mutton and wool in Queensland for 14 years:—"I have gained in Queensland what I lost in New South Wales. With more population, Queensland must be the leading State of Australia."

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Mr. H. H. Dixon, B.A., born at Cambridge, England:—"Queensland is a land indeed bright with promise of great things for the future. I am more than thankful that I was induced to make my home in such a State."

Mr. J. McNamara, born Kilrush, County Clare, Ireland:—"There is no better country in the world for the man who wants to make money off the land than Queensland. Her splendid virgin land can be had cheap, and on the most liberal terms. Crops can be put in at once, and in a few months the land is practically paying for itself. I have proved Queensland for myself."

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Mr. A. T. Jackson, born in Yorkshire:—"I have had an opportunity of noting the conditions in other lands, and I am quite convinced that any young man who is willing to work can make a good living in Queensland off the land."

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Mr. Philip McGrath, born in Thules, Ireland:—"I strongly advise the young man who desires to get the very best returns for his labour to come to Queensland, where there is an unlimited supply of land. If he has not enough ready money to go on to the land at once, employment is to be had for the asking. In this way he can gain colonial experience in the best school—on a farm where all branches of the industry are taught in the most practical manner."

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Mr. R. C. Bishop, born in Glasgow, Scotland:—"I am quite satisfied that for general farming, there is nothing in the old country to compare with the opportunities offered in Queensland. The results to be attained in Queensland are, in my opinion, far ahead of anything that can be hoped for in Scotland."

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Mr. John McGarrigal, of Laidley Creek:—"I have travelled in Great Britain, Victoria, and New South Wales, and I am quite satisfied that in none of these countries has the farmer such splendid opportunities as he has in Queensland."

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Mr. Burlse, who has a fine farm in the Lockyer district some 50 miles from Brisbane, writes:—"I can offer no better advice than to tell the young agriculturists of Great Britain who want to get on in the world—young men who are not afraid to work—to come out to Queensland. There are golden opportunities for them, much better than I had, because everything is more up-to-date. It would have been impossible for me to rise to the position I am now in if I had remained in Ireland, where I was a farm hand."

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Mr. James Waite, born Marlborough, Wiltshire, England, now of Rose Vale Farm, Elphinstone (Queensland):—"The young British farmer who comes out to Queensland cannot fail to do well, as everything is in his favour. The opportunities for obtaining good land are second to those of no other country in the world."

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Mr. F. C. Easton, born Liverpool, England, now of "Erlenton," Darling Downs:—"A man coming to Queensland will find determination just as good an asset as capital. Hundreds have succeeded on the land, and what has been done by these may be done by hundreds of others of the British race."

William Mackay Charles, of Gootchie, N.C. Line, a native of Kiama, New South Wales, who has been in Queensland four years:—"The best State in Australia; land laws are more liberal, and there is greater scope of agricultural and pastoral lands."

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Henry Davis, of Melrose Orchard, Maryborough, a native of Bristol, Somersetshire, England:—"I have been resident in Maryborough district 25 years, and have prospered. I am proud of Queensland. It has a beautiful climate, second to nothing in the world."

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John Robert Martin, of Hobart House, Cawdor, a native of Campbelltown, Tasmania, 46 years in Queensland, and one of the pioneers of farming on the Darling Downs:—"In my experience as a wheat grower and all-round producer, there is no other State in the Commonwealth that gives the same average crops of wheat and other cereals. There are still large areas of land that can be brought under cultivation for wheat and other produce. Southern and Western Queensland can hold its own with any other States in producing fat cattle, sheep, and wool."

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Aubin Dowling, Talgai West, Hendon, a native of Tasmania, and 43 years in Queensland:—"I started out from Tasmania for Queensland at the end of 1864, and after a brief time in Sydney, arrived in Brisbane early in 1865, and this State has been my home ever since, and here I hope to remain. During these long years I was never laid up with any serious sickness. I have been all through the States at different times, except South and Western Australia. None of them have the same charm to me as the sunny land of Queensland, the brightest jewel of them all. I do not think any one of the other States can offer the same inducements to successful settlement."

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D. C. Pryce, of Headington Hill, Clifton, a native of Shoalhaven, New South Wales, for six years resident in Queensland.—"A land that is good to live in, abounding with resources. For dairying, agriculture, and lamb raising, the Darling Downs cannot be surpassed."

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Henry Missing, of Talegalla, Tiaro, N.C. Line, a native of Bedford, England, for 45 years resident in Queensland.—"After spending a year in Canada and the United States, I determined to try Australia, and after almost a lifetime spent in it, have no reason to regret coming here. The climate is far superior to Canada, the natural opportunities are in my opinion better, and it is the most healthy country I have ever lived in. I cannot refrain from expressing that what struck me most after my arrival was the kindness and hospitality shown by all classes to even perfect strangers."

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James Thomas Pike and Edward Pike, natives of Ottery, St. Mary's, Devonshire, England, now of Acacia Vale, Woolooga, who have been for 20 years in Queensland.—"Selected 40 acres under the Village Settlement Land Act, and now

have 4,000 acres, Queensland is the place for a man with small capital to obtain a home and a farm of his own, or for a farm labourer who is willing to work, to easily become his own master."

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Donald Mackintosh, of Glencairn, Southbrook, Member of the Legislative Assembly for Cambooya, was born at Lochaber, Inverness, Scotland, and has been for 45 years in Queensland.—"I believe there is no place to equal Australia, and Queensland is the best place in Australia. Dairying can be carried on all the year round on the natural grasses, as against six or eight months in Victoria or New South Wales. Lucerne for dairy cattle grows luxuriously, as many as eight crops a year being obtained."

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Percy Biddles, a native of South Australia, now of Home Park, Netherby, N.C. Line, 35 years in Queensland.—"I have lived more or less in all the States, but Queensland for a man to succeed in, stands out before all the rest. No one can help getting on if he is steady and industrious. I believe we have the finest country in the world."





Queensland's Forest Wealth

Her Commercial and Fancy Timbers.

By Charles E. Taylor.

NATURE was particularly lavish over Queensland when she bestowed on Australia the riches of soils, minerals, and forests. In this State, at any rate, the capricious dame seemed to recognise the full force of the adage that what is worth doing at all is worth doing well. Not content with providing in many places land unexcelled in point of fertility in any part of the world, with depositing in other districts less outwardly alluring mineral wealth beyond the dreams of avarice, and with supplying for man's wants the most luscious of tropical and semi-tropical fruits, she clothed the hills and valleys with a garb of timber of infinite variety, and of a commercial value almost above the possibility of computation. In dealing with the resources of Queensland, the reviewer often forgets the timber industry—probably because as yet it has been but partly developed. The future of our forests as a state asset may be better understood when it is known that ever 60,000 square miles of wooded country is contained within the borders of Queensland—considerably more than a third of the whole timbered area of Australia—and when the remarkable fact is made known that even at the present time, of every 13 persons in the State one is directly dependent on the timber industry for a living. It is calculated that there are about 3,000,000,000 superficial feet of pine in the State, worth anything from £25,000,000 to £30,000,000. This, of course, is apart altogether from the various hardwoods, which, if it were possible to estimate their value, would raise the total wealth of our forests to a dizzy altitude.

SOME STRIKING FIGURES.

From the figures contained in the latest report of the Director of Forests, it is possible to show the extent of the industry at the end of 1906. There were then in operation in Queensland 140 sawmills, employing 2,076 hands (an increase of 311 for the year), while the timbers cut during the twelve months were:—Soft woods, 49,588,575 feet, valued at £252,605; cedar, 849,225 feet, valued at £12,585; hardwood, 32,364,046 feet, valued at £194,359. Of this timber, with a total value of

£459,549, about a fourth—£103,924 to be exact—was exported, the other States taking £74,645 worth, and places beyond the Commonwealth £29,279 worth. In 1906, the State derived £14,560 from licenses and the sale of timber, while the railway revenue benefited to the extent of £97,051 in wood and timber freights. Queensland is now able to supply from her own forests practically the whole of the timber required locally. In this connection, it is interesting to contrast her position with that of the other Australian States. During 1906, Victoria imported considerably over half a million pounds worth of timber from Norway, Sweden, and America; New South Wales took £526,413 worth; the imports of South Australia ran into six figures; Western Australia, despite its much-boomed forests, bought £69,678 worth; while even little Tasmania had to go abroad for £23,959 worth. Queensland, on the other hand, expended only £3,262 in the oversea countries mentioned—not because timber of as good quality could not be obtained locally, but probably because the shipments were really bargain lots. Wages are lower, and forestry has received much more attention in Norway and Sweden than in Queensland, while ships trading to Australia carry timber at a cheap rate, taking wool, etc., as return cargo, but it is not too much to expect that in time the hoop-pine of this State will completely oust the foreign timbers from the Commonwealth markets. That we are making very substantial progress in this direction is shown by the export figures of the last few years.

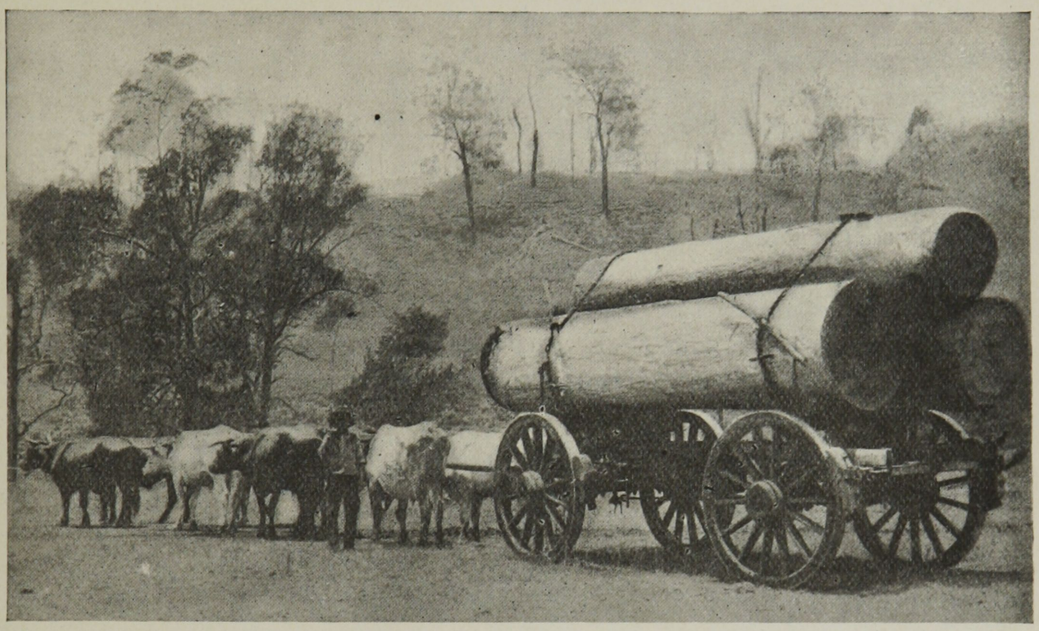
A QUEENSLAND FOREST.

The heart of a Queensland forest, into which the hardy timbergetters penetrate, with their great lumbering waggons, drawn by long strings of bullocks or horses, is almost awe-inspiring in its picturesque grandeur. The following description of a forest scene is applicable to hundreds of miles of country in this richly-endowed State:—Here the forest was an almost impenetrable mass of vegetation, in which gum, pine, and beech trees rear their stately heads above a clinging confusion of luxuriant undergrowth, the enchanting effect of the scene being enhanced by the presence of an occasional towering cedar bursting into flower. Vines, lichen, and ferns struggled for supremacy in that bewildering foliage. Here a huge staghorn, clinging to a lofty beech, spread its antlers as though in triumph over its less exalted fellows; here a great fern flourished and expanded, affording grateful shade for the delicate maidenhair, which clustered round its roots; there a lusty vine entwined itself in fantastic shapes around a majestic silky-oak, until the ends of its embracing tendrils waved proudly above the very tree itself. On the right, the country fell away into a deep ravine, up the slope of which a wealth of varied timber struggled towards the sun. Wild strawberries and raspberries (both used for jam making by the prudent housewife), grew in profusion, backed by splendid specimens of the stinging tree.

A MIGHTY CEDAR.

Speaking of the timber resources of North Queensland, the other day, a gentleman well acquainted with the industry said that on a recent visiit to the Atherton scrub (one of the most famous wooded areas in the State), he saw a magnificent cedar tree felled, and placed on the jinker ready for removal. The owner informed him that

the market value of the timber in that one trunk was £105 15s. It was a beautifully even-grained and deep-coloured cedar, the aroma from which pervaded the scrub for yards around. Generally speaking, the Queensland cedar attains a height of from 150 to 180 feet, with a bole of from 3 to 6 feet in diameter. For a soft wood it is fairly strong, having a modulus rupture of 3,700 lb. to the square inch. It seasons extremely well, its resistance to warping, twisting, and shrinking being very good, while the grain is very free, and planes up to a fine surface. Luxurious looking furniture is made from this most useful timber, which is also largely availed of in the house joinery and the manufacture of boats. Its present price is about 30s. per 100 superficial feet.



HAULING LOG TIMBER TO THE MILL.

OTHER VARIETIES OF TIMBER.

According to botanists, there are altogether about 600 varieties of timber in Queensland, but a number of these, of course, have no commercial value. Mr. Philip McMahon, the enthusiastic Director of Forests, considers that of the various hardwoods in the State about two dozen could be profitably exported, these varieties comprising substitutes for every class of wood now being used in Europe, India, or Africa—from teak to spruce. Queensland has behind these a large variety of woods of great merit for furniture, veneers, and the like—indeed, it is not too much to say that her timbers of real commercial value would not be exhausted in a list containing 100 names. It is impossible in the space at disposal to deal with all these wealth-producing products of the Queensland bush, but their adaptability may in some measure be gauged by the use to which a few of them are put in the construction of railway carriages in the Government Workshops at Ipswich:—Cedar—Carriage pillars, panels, mouldings, doors, and decorative purposes; silky oak, bean tree, and silkwood—Mouldings and decorative purposes; crow's-foot elm—seats; beach—roof cornices, carriage platforms, and framing; hoop-pine—inside framing and flooring; bunya pine—blind louvres,

sheathing patterns, and boxes; hardwoods, tallow wood and spotted gum—under frames of coaches, waggon and bogie framing; blue gum and ironbark—framing of carriages, etc. The Queensland pine is declared by experts to be superior to both the American and the Norwegian for all the numerous purposes to which it is put. It is stronger and more durable for buildings, while for butter boxes—of which many hundreds of thousands are made in Brisbane, and the country timber centres every year—it is believed to be unsurpassed.

TIMBER FOR FURNITURE MAKING.

A visit to a big furniture factory in Brisbane shows, perhaps, better than anything else could show, the great variety and beauty of the Queensland timbers, while, incidentally, it also demonstrates the remarkable fact that, class for class, Brisbane is the cheapest place in the world for furniture. The Southern States of the Commonwealth still import large quantities of furniture, and much of the timber from which the locally-made article is produced, but Queensland is in the happy position of being able to supply practically the whole of its needs in both respects. While it is still necessary to go abroad for a few special lines, of which bentwood ware is the most notable, not a foot of foreign timber is used by the State furniture makers. It is not an uncommon thing nowadays for Brisbane manufacturers to execute orders for customers as far afield as Melbourne. The beauty of the Queensland timber always strikes the Southern visitor, and it not infrequently happens that an order for some article of furniture follows. Few timbers seem to lend themselves so readily to a handsome effect in dining room furniture as beanwood, and one particular suite in that beautifully rich red wood seen by the writer in a local furniture factory was striking enough to grace the palace of a prince. The wonderful susceptibility to colour of a silky oak, with its beautifully waved grain, is shown in the golden, green, antique and other shades employed in wardrobes, sideboards, and other heavy furniture, while maple is often seen in its natural hue, and also finished as rosewood and walnut. The adaptability of white cedar in a like direction is likewise demonstrated.

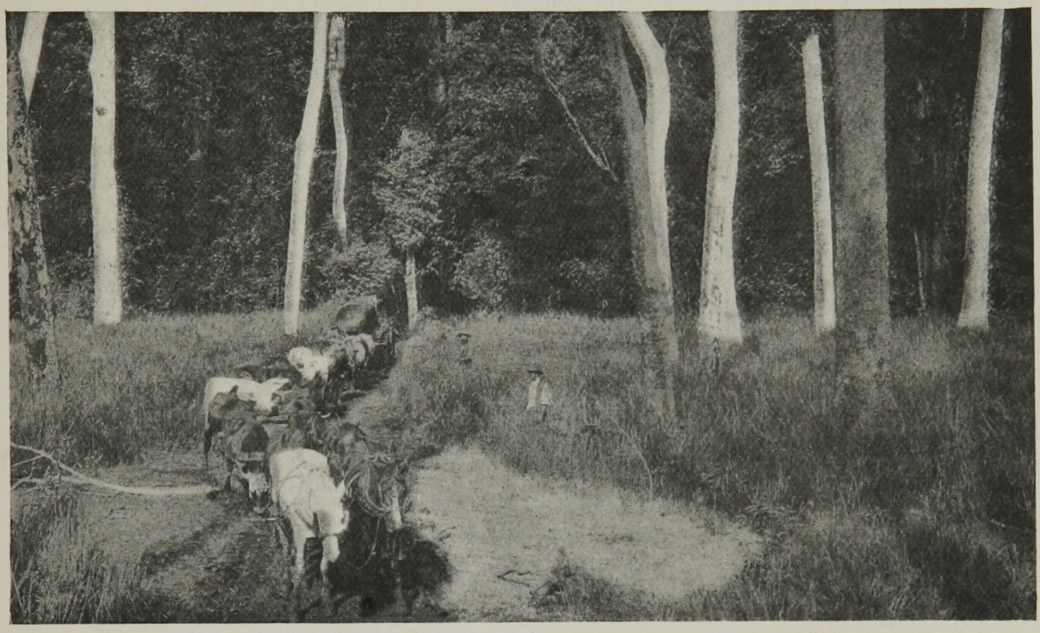
TIMBER FOR RAILWAY SLEEPERS.

Queensland possesses eight varieties of hardwood which make ideal railway sleepers, namely—ironbark, tallow wood, spotted gum, grey gum, red stringybark, blackbutt, messmate, and turpentine, the length of life of which varies from 15 to 30 years. In 1903, the Government took into consideration the possibility of opening up a trade in sleepers, which would turn to valuable account the enormous quantities of hardwoods which the State possesses, and a cable was sent to South Africa, asking for particulars as to the requirements there. With a view to helping the initiation of what might prove to be an important trade, the Government undertook, on the payment of the actual expenses incurred, to have the sleepers inspected before being sent out of the State, and to exercise the same care in the inspection as if the sleepers were intended for their own use. A contract was placed in Queensland, and the result was to demonstrate beyond the shadow of a doubt the eminent suitability of the timber available here in large quantities for sleepers. Of the first cargo shipped under this contract not a single sleeper was rejected on arrival in South Africa.

Indeed, it may be said with perfect truth that their suitability came as a revelation to the engineers in charge, and the question was freely put, "Why was this timber not placed on the markets of the world long ago?" The obvious reply, as pointed out by the present Director of Forests, was that there did not seem to be any great demand for large quantities of timbers for sleeper purposes. Then came an order from India, followed by other contracts.

A VISIT TO A SAW MILL.

It may be helpful to readers outside Australia, and lead to a better understanding regarding the great timber industry of Queensland, if I recall for their benefit a visit



HAULING PINE OUT OF A QUEENSLAND SCRUB.

which I recently paid to one of the big Brisbane sawmills. Entering the yard where the timber is stacked in the rough, one was able, almost at a glance, to realise the prolific variety of our State forests. Conspicious amongst its fellows was a beautiful pine log fully 6 feet in diameter, while the other logs ranged in circumference from 4 to 12 feet. They comprised almost every variety of timber known in Queensland, the more noticeable of which were hoop, bunya, and she pine, ironbark, spotted gum, blue gum, bally gum, red stringy, messmate, tallow wood, yellow wood, silky oak, beech, Queensland hickory (one of the toughest woods known), and ash. The last named, which is an ideal wood for flooring boards, being proof against the most destructive white ant that ever caused a builder to risk a warm eternity, stood a higher crushing test than any other Queensland timber during a recent trial in England. The hardwood and pine logs are dealt with in separate mills. The former, when ready for the saw, are hoisted by a 10 ton crane on to a Yankee bench—a most ingenious travelling feeder, with numerous clips and levers, which enable the workmen to deal with great trunks as though they were splints of matchwood. When once in position, the pull of a lever sets the bench and log travelling towards the humming

4 ft. circular saw. After the first cut the manipulation of another lever brings the bench and its burden back to the starting point, where the log is turned over in a few seconds by means of the crane. The sides having been squared by successive cuts, the log is then sawn into boards of any thickness desired, their size being regulated by still another of those miracle-working levers. In dealing with very large logs, two circular saws, placed one on top of the other and separated by about a sixteenth of an inch, are used. The boards then go to one or other of the three hand benches for further cutting. The largest of these saws is capable of dealing with 16in. x 16in. timber, the second takes lighter stuff, while the third is reserved for palings, weatherboards, etc. At the time of my visit, hardwood logs, 52 feet long, were being put through the mill, their ultimate destination being Thursday Island, where they will be used in boat building. Before leaving this department, my attention was drawn to the swinging circular saw which is used for cutting off the ends of boards, and thus saving hand work, to the belt elevator which conveys the waste timber cut for firewood to the loading heap, to the band saw for cutting blue gum felloes, and to the rabbiting and tenoning machine, which is used principally on shafting timber for the mines.

HOW PINE IS TREATED.

A move was next made to the pine mill, where a scene of even greater activity was viewed. Pine logs were being sawn into 16in. flitches by a huge vertical saw, both sides being cut simultaneously by means of two blades. The frame takes several blades, and by the use of four, two logs can be sawn at one time. When the log has been squared it goes to a skip, and is thence carried to another vertical saw, to be cut into $\frac{5}{8}$in., 1in., and 1$\frac{1}{2}$in. boards—not one at a time, as might be imagined, but by the sheaf. By sawing three flitches together and using 24 blades, it is possible to cut simultaneously 72 boards, which present a truly remarkable sight as they fall from the saw. The other machinery in this mill include a travelling rack bench, two large frame saws, and three circular saws, nearly all of which are kept going contiuously. Let us now follow, say, a flooring board through the various processes which lie between the rough-sawn plank and the finished article. From the saw bench it goes on a truck to a drying kiln, a big, hades-like chamber, heated by means of hot air drawn from a nest of steam pipes by a huge 9 feet fan, which is kept going night and day. In the hottest part of the chamber during my visit the thermometer registered 138 deg., but at the other end, where the timber received its first "baptism of heat," before being wheeled into the maximum temperature, it was not more than 70 deg. The kiln has a capacity of 70,000 feet of timber, and the boards are thoroughly dried in about 10 days, as against a month to six weeks, or even longer, in the open air, according to weather conditions. When dry, the boards go to the planing and moulding department, where the finishing touches are imparted by these noisy, chip-creating machines, through which the long strips glide with surprising rapidity. In this portion of the premises were noticed three planers and two moulders, one of the former of which was taking timber up to 24 feet 6 inches, and another dealing with lattice laths, while one of the moulding machines was converting plain pine strips into beautiful 4 inch architraves.

THE GROWTH OF THE INDUSTRY.

The following figures afford gratifying evidence of the growth of the industry during the past five years in all but the production of cedar, of which, however, enormous supplies will be made available by judicious railway extension in the northern part of the State. The manufactured timber turned out of the mills of the State since 1902 has been:—

	Softwoods. ft.	Hardwoods. ft.	Cedar.	Total.
1902.	40,329,810	30,461,062	1,688,079	72,478,951
1903.	41,323,350	26,634,932	1,550,518	69,508,800
1904.	44,822,715	25,379,892	1,091,214	71,293,811
1905.	47,071,780	25,961,203	897,296	73,930,279
1906.	49,588,575	32,364,046	849,225	88,801,846
The totals for the past twenty years are:—				
	1,005,712,644	820,653,393	42,643,437	1,869,009,474

Queensland's Artesian Bores

A Wonderful Asset.

By F. C. Woosley.

[Statistics relating to Queensland's Artesian Bores will be found under the heading "Pastoral."

PROVIDENCE has been kind to Queensland. She has given the State coastal lands of wonderful fertility, and as though to provide for those days when circumstances will drive settlement further west, she has given the lands far removed from the coast an unlimited subterranean supply of that inestimable asset—water. Were the whole of Western Queensland water supply of a surface character, it would be quickly evaporated by the warmth of the bright, health-giving sun. But nature makes no mistakes, and to prevent losses in such a direction, she has placed the bulk of the water supplies in the waste districts of Queensland many feet under the surface.

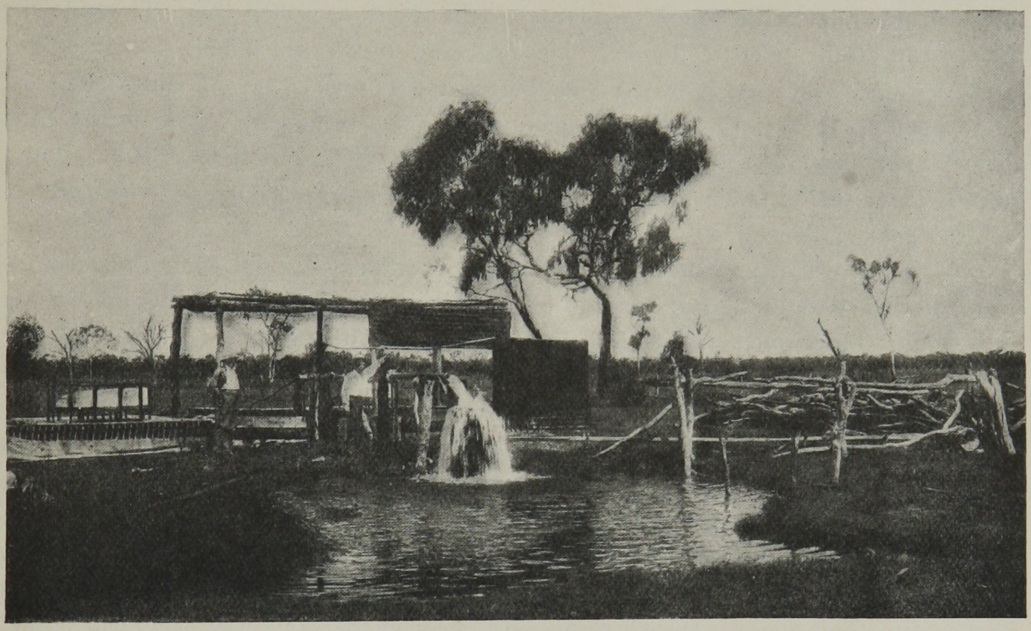
The sinking of wells has been a trade known from the very earliest days. In Biblical history, several wells are mentioned. The honour of being the first tradesman in this particular line falls to the lot of Abraham, the Chaldean. The same necessity which existed in that distant past for wells, exists to-day in Queensland, but the years have seen a very distinct change in the methods of sinking.

The old method of digging out a well was to employ some sharp instrument, such as a pick, or bar and a shovel. The Chinese were the first nation to depart from this method which had satisfied the primitive man. That Eastern race, whose civilisation dates back through many centuries, discovered that the water supplies closeted in the dark recesses of the earth could just as conveniently be tapped by a hole sunk by means of a chisel connected with wooden rods. It is doubtful, however, whether the Chinese ever made any very general use of this knowledge.

It was not until petroleum was discovered in Western Pennsylvania, some 54 years ago, that the attention of keen practical men was directed to the problem of well sinking. As a result of this concentrated attention, it was not long before the shovel had been thrown aside in favour of the steel rod system. This system consists of a steel chisel with rods of various lengths attached. By jumping the chisel up and down a hole is gradually sunk, and the material is afterwards raised by a deep

holder with an augur-like bottom. This system is still used occasionally in Southern Queensland for sinking shallow wells. All deep wells, however, are now sunk with modern sinking machinery, driven by steam power.

The discovery of oil was a most important development in the American industry, but the improved methods of sinking wells which followed as a consequence of the oil discoveries were of much greater significance. The question of obtaining a good water supply is one which engages the attention of every new settlement, not only in Queensland, but throughout the world. A liberal supply of good water is an absolute necessity to the maintenance of health, and to the artesian supplies, the



ONE OF THE MANY BORES WHICH TAP THE ARTESIAN WATER SUPPLIES IN WESTERN QUEENSLAND.

tapping of which has been made possible by the great improvement in the means of sinking, the western districts of Queensland and other comparatively dry portions of the earth's surface owe very much more than mere words can convey. Already many a barren spot has, under the influence of artesian water supplies, been made to bring forth cereal crops and fruit abundantly.

A recent writer in a well known American journal says:—"In Australia vast sections of land which have lain idle and useless for years, because of the lack of water to make them fruitful, have been transformed into valuable farms by drilling a few holes in the ground, and the consequent release of water needed to make them fertile. In South Africa, the value of artesian wells has been recognised, and they are being bored all over the continent, the work increasing with each successive year. It would not be surprising if the desert of Sahara should eventually be redeemed from its barreness by means of this agency, and become a garden spot of the dark continent."

And now let us pay an imaginary visit to a boring camp out in what has been called the "never, never" country of Queensland. A contract has been let for the sinking of a bore at a spot some considerable distance from a station homestead, the price arranged being so much per foot. There are no habitations near, and the country around is as flat as a tennis court. Hardly a tree or a shrub breaks the monotonous outlook, and the climate is, though exceptionally healthy, warm. The plant has just arrived from another property many miles distant, and all hands are engaged in rigging up the tents, and making things as comfortable as possible for their stay, which will probably stretch out into many months. The curtain of night has fallen by the time camp arrangements are completed, and over the evening meal the men joke and make fancy wagers as to the depth at which they will strike the flow. And after supper to "bunk." The first grey streaks which herald another day see the camp astir, and it is not long before the "boss" is giving directions here and directions there. In response, some of the men commence erecting the high derrick; another brings his ingenuity into play, with the result that a lean-to forge quickly takes shape, and not to be outdone the cook blossoms into an architect too, and designs a galley.

A day or two passes, and at last all is in readiness for the commencement of actual boring operations. But no word has been said as yet of the number comprising the camp. Three men and a dog were Jerome K. Jerome's well-known up-river party, but the combination on the present occasion consists of twice that number of men and a cook (no offence to the cook). And now for the boring work.

The drays have brought the necessary water and wood for the engine. Steam is up, and for the first time the stillness of the locality is broken by the shrill blast of the siren. But though she is puffing away eager to work, the engine will have to remain idle for a time yet. The first portion of the bore will be through black soil, so that an augur, the tool used for sinking through this class of material, is placed in position. This augur is turned with a horse gear in the same way as a chaff cutter. After a few feet have been bored the augur is raised and emptied. This process continues until the rock is reached—15, 20, or more feet down. Casing has already been lowered to prevent the sides from falling in. Now all is in readiness for actual boring operations. Watch the rods being coupled. The rock is to be drilled out with a steel bit. To this instrument is secured a sinker, a long piece of steel weighing from two to nine hundredweight, according to the character of the rock to be drilled through. Another instrument known as a jar is secured to the top of the sinker, and then rods are attached. After a brief spell, the word is given to the driver, and the engine commences its work to the music of the easy running wheels. The bit dances at the rate of some 40 or 50 strokes a minute. The method is a combination of the American cable system, and the Canadian rod system. When the sinking has been done to a depth of 300 feet, the rods are disconnected and a cable substituted. The next 300 feet are sunk with the rods again, and then another length of cable is paid out. And so the work goes on. When the soakage is not sufficient, water has to be poured down the bore. This mixes with the cuttings and forms a slushy substance, which is easier to raise than dry material.

After every 3 or 4 feet, the tools have to be raised to permit of the cuttings being lifted. While this work is being performed, the bit, if it requires it, pays a visit to the forge, and is "dressed."

The work has been proceeding for months perhaps, when reward is met with in the shape of a flow. But it may only be a small flow, quite insufficient for requirements. If this be the case the work has to be continued until a more copious flow is struck. As the sparkling water bursts forth from the top of the casing, the men send up a cheer, for to one more locality has been given the one great requirement necessary to permanent and profitable settlement. Out on that lonely plain these men have achieved a victory—all honour to them.



CHILD LIFE.

"With frolic, glee, and laughter sweet, and childhood's careless song."

By Harry C. Perry.

THE value of child life in such a young and thinly populated territory as Queensland was realised at an early stage in its history, and successive administrations have endeavoured to safeguard the interests of the little ones with genuine zeal. That there is a profound wisdom in the adoption of such a policy will be admitted by all who give even a passing thought to the subject, for the children of to-day will be the citizens of a few years hence, and according to the character of their environment, of the measure of their opportunities in early life, so will their value as men and women be largely determined. It is not claimed for a moment that perfection has been reached, despite continued striving to that end by thoughtful humanitarian legislators, but very much has been accomplished, and this much may be taken as an earnest of further endeavour until it shall be said of Queensland, in the words of the proverb: "Her children shall arise up and call her blessed." The child that is reared in this sunny land shall assuredly learn to love it, not only for its beauty, its healthfulness, and its freedom, but for all the guide posts and stepping stones to distinction which have been provided for the assistance of zealous youth.

Of the State itself, it may be said that nature has made it one of the playgrounds of the world for little folk. The rigorous climate of Great Britain and of North America, entails a deal of hardship upon tender children, particularly the children of the poor, and there can be no doubt that death or disease results in many thousands of cases. Such rigors are absolutely unknown in Queensland where the children of rich and poor frequently cast off their boots and run barefoot from choice, so delightful is the weather all the year round. The opportunities for exercise and recreation are unbounded, whether the children reside in town or country. Quite apart from the fact that parks and recreation reserves are plentiful, there are the facilities afforded by the systems of house-building adopted throughout the State. It is only in very rare instances that the old world method of buildings in terraces

is followed. Practically every home, however small, is detached, standing in its own allotment of ground, and that allotment is always large enough to allow of a grass plot, a few trees, and a piece of garden. In these home gardens the children or family are able to disport themselves free from all the dangers and contaminations of the street, a circumstance that must be of the greatest possible advantage to the child life of the State. As to the educational advantages, of which some particulars will be given, it may be said that the business and public life of the State teems with examples of its good results. The successful Queenslander who can be said to have been born with the proverbial silver spoon in his mouth, is practically unknown. The men who have made the State one of the brightest gems in the Imperial Crown—the men who are the blood and body of Queensland—have had to fight for their positions with only the aid of those educational and other facilities that the State affords. There are few countries in the world where the places of power have been so consistently filled by men who have been in the fullest sense "of the people," men like the late Hon. T. J. Byrnes, who wrested from the world by sheer endeavour all that the world could give. The gentleman named may be briefly cited here as an instance of how far the educational system of Queensland may become a pathway to distinction. Thomas Joseph Byrnes was a native of Queensland, the son of poor parents, and he began his career at the State schools, where education is free of cost. He first distinguished himself by winning one of the scholarships which are annually offered, and which entitled him to a term at the Brisbane Grammar School. At that splendid institution he won the gold medal three times, also the Trustees' Scholarship, and was facile princeps in the examinations held under the auspices of the Sydney and Melbourne Universities in 1876. The following year he passed the Senior examination with first-class honours, and gained an exhibition to the Melbourne University, where he subsequently took his B.A. and L.L.B. degrees. After having won his education right through without any expense to his family, he was called to the Bar, became Solicitor-General, Attorney-General, and eventually Prime Minister of Queensland. Since then the opportunities for other lads to follow this splendid example have been considerably widened.

A basic feature of the State education system in Queensland is that it is free, secular, and compulsory. No charge whatever is made upon any child, the whole cost being defrayed from the consolidated revenue. The expenditure under this heading, irrespective of new buildings, repairs, painting, additions, etc., for financial year 1906-7, was £351,548, and the estimated expenditure for 1907-8 is £380,990; also irrespective of new buildings, etc. The teaching is rigidly secular. Attendance is compulsory between the ages of 6 years and 12 years, but children are admitted at the age of 5, and may continue to attend until they are 15 years. After that age they may be excluded at the discretion of the head teacher, with the approval of the Minister for Public Instruction, who is directly responsible to Parliament. The minimum of days upon which a child must attend, unless other provision for efficient instruction is made, is 60 days in each half-year. The course of instruction in these primary schools includes, reading, writing, arithmetic, English grammar, geography.

history, elementary mechanics, object lessons, drill and gymnastics, vocal music, sewing and needlework, and such other subjects as the Minister may from time to time prescribe. Considerable attention is paid to matters likely to affect the future characters of the little ones, the department realising the truth of the axiom that "as the twig is bent so will the tree grow." The children are impressed with the principles of morality, truth, and justice; they are encouraged in habits of cleanliness and neatness; trained to be modest, orderly, and polite; instructed in the principles of government, the beauty of patriotism, and the privileges and duties of citizenship. Matters relating to the health of the children receive special care. When a new school is erected, a site is chosen which is high, dry, and well drained. The buildings are constructed with due regard to hygienic conditions, lighting, ventilation, air space, etc., and each school is surrounded with roomy verandahs and school grounds. On warm summer days it is the common practice to conduct the classes on the verandahs or beneath the buildings, which are invariably built some height above the ground thus allowing for the maximum of coolness and health. Should any of the complaints which sometimes manifest themselves amongst children be found to exist, the local school committees are assisted in taking prompt steps to prevent their spread, and the services of the Public Health Department are always available. Only recently the appearance of opthalmia in some of the Western schools was met by the despatch of a medical officer to the districts affected, and the establishment of a State institution for the treatment and study of acute cases is likely to follow. A general movement is also taking place towards the establishment of a complete system of inspection, and inquiry into the health and physical culture of the children attending the State schools. When this is established, special attention will be directed to the teeth, eyes, ears, noses, and throats of the children. An aim of the Department and its teachers is to make the school life of the little ones as bright and happy as possible. Annual treats and excursions, in which parents can join, are arranged with joyous results. The birthday of the late Queen Victoria, May 24th, is still celebrated throughout Queensland as Empire Day, and this is looked upon as being particularly the children's day when all school picnics are held.

The constant spread of population into new districts is watched carefully by the Department of Public Instruction, which is prepared at all times to establish a school wherever 12 children can be gathered together. The one condition is that parents subscribe one-fifth of the cost of the building—not a very big item in country districts where the requirements are modest and timber cheap. The State finds the remaining four-fifths, appoints and pays qualified teachers, and finds all school requisites.

In remote localities where the children are very scattered and cannot be collected into school groups, the Department has a system of itinerant teachers. Each itinerant teacher is equipped with a buggy and four horses; he travels from home to home and leaves school requisites and guiding instructions; tries to arrange for one of the family to give some instruction to the little ones; does some teaching himself, and then passes on to another home. Additional itinerant teachers are about to be



QUEENSLAND CADETS AT DRILL IN THE CAPITAL CITY, BRISBANE.

appointed. It is expected under the new system that each family will be visited at least four times a year.

Agricultural training is particularly kept in view, as indeed it should be in a land which is becoming famous for richness of its soils and the wonderful variety of its produce. The first Friday in May of each year is celebrated as Arbor Day, when, in addition to tree planting and other horticultural work, the teachers give a conversational lesson to the children upon the nature and habits of trees and flowering plants, their uses in the arts or for ornaments and shade, their variety, beauty, etc. Many teachers give practical lessons in the rudiments of agriculture by cultivating experimental plots in the school grounds, where cereals, vegetables, fruit, etc., are grown and lessons given in elementary botany, trenching, fertilising, pruning, grafting, and irrigation. In order to assist the teachers in pursuing this valuable work, a course of instruction for head teachers and assistants is conducted each year at the State Agricultural College, Gatton. The Department of Agriculture co-operates in the most hearty manner with the Education Department in these matters; seeds and plants are provided for the schools, valuable prizes are given for the best kept and most attractive school grounds and gardens, the best agricultural and experimental work, etc. Arrangements have latterly been made by which the Government experts in agriculture, fruit growing, etc., visit the schools at regular intervals, giving assistance and advice to the teachers and pupils. Assistance to the young people who intend devoting their lives to the primary industries does not by any means stop at this point. The Agricultural College previously referred to has, for years, been engaged in successfully imparting to youths of the State a complete and thorough grounding in all the principles of up to date dairy farming, fruit growing, and general agriculture.

The disposition of the average Queensland child demands some outlet in the shape of athletic exercises, and these are encouraged. There are certain gymnastic features in the curriculum, and in addition there has been established swimming, football, and cricket clubs in connection with many of the schools. A due regard is paid to the necessity for inculcating the patriotic spirit so characteristic of the Britisher the world over, and the State school cadet system is invaluable in this direction. Since the establishment of the Commonwealth, the control of the Cadet Force has been satisfactorily carried out by the Commonwealth Defence Department, and it promises to be a splendid medium for the development of that great citizen soldiery to which Australia looks for the future protection of her magnificent territory. There are now in Queensland over 3,000 cadets fully uniformed and equipped. The Commonwealth Government pays for all arms, ammunition, instruction, and all working expenses of the Force, and allows in addition a sum of 7s. 6d. towards the uniform of each cadet. The cadets are largely officered by the school teachers, and all show a splendid enthusiasm in the movement. How to shoot straight is one of the principal lessons which the system seeks to inculcate, and valuable silver cups are presented each year as prizes for competition in each battalion, senior and junior. In his annual report for last year the Minister for Educa-

tion drew special attention to the facilities for training naval cadets which the long coast-line and many fine harbours of Queensland present. He pointed out that swimming, boating, and sailing are pastimes which have become almost a passion with young Queenslanders, and a naval cadet corps could surely become popular. Queensland's Naval Commandant echoed the views of the Minister most heartily and a strong hope is entertained that corps of naval school cadets will become an established fact before very long. Meanwhile, senior naval cadet corps have been formed at the principal ports, and their success in seamanship and shooting, including the handling of the 4.7 and the heavy guns with which the Queensland training ships are equipped, has been phenomenal. Commander Richardson has already announced that it is amongst these lads that he will look in future for his naval militia material, and the field will be greatly augmented when the school naval cadets are established.

Though Queensland is only now on the eve of securing a University, she is possessed of a very good system of secondary education. There are ten undenominational grammar schools in existence in various centres. 6 for boys and 4 for girls. The rate of endowment is practically £1,000 per annum to each school, being £750 cash and £250 on account of district scholarships. Five of these scholarships are allotted to each grammar school every year, making a total of 50. There are two classes of scholarships provided by the Government, the first being known as State scholarships. There are 36 of these given each year, 27 to boys and 9 to girls. and the winners are entitled to free education at one or other of the grammar schools for a period of three years. The 50 district scholarships are additional to the State scholarships, the difference being that in the case of the district scholarships the holders must attend the grammar school nearest their homes.

Eight State bursaries are given annually, entitling the holders to free education at a grammar school for 3 years, together with an allowance not exceeding £30 per annum. Those candidates only are allowed to compete for bursaries who must necessarily board away from home, and a bursary will not be awarded to a child whose parents are in a position to pay for the education. To all these opportunities for free education there are added each year three exhibitions to the Universities of the neighbouring States, tenable for a period of 3 years, and each of the annual value of £100. Free railway passes are granted to winners of scholarships and bursaries, enabling them to travel between their homes and the selected centres of learning It should be mentioned, too, in connection with the primary schools, that in the case of scholars under 16 years of age residing where there is no public school within two miles of their homes, they are granted free second-class railway passes to enable them to attend the nearest State school to which the train service is available. It must be apparent on the face of it that the system of education herein outlined is good, and if further proof is needed, it can be produced. For instance, in 1905, the league of the Empire gave a challenge cup for competition by primary school scholars throughout the Empire. It was the first time the cup was given, and it was won by a Queensland State school scholar. In 1906 the league of the Empire offered a cup for competition amongst all the secondary schools of the Empire, and

it was won by a Brisbane Grammar School boy. One Rhoades' Scholarship is allotted each year to Queensland, and the lads who have won these honours have, in every case, been a credit to the State.

Technical education has been fostered for many years, and much good work has been done. The amount of attention directed to it, however, has latterly been very much increased, and institutions which, in the first place, were largely of a spontaneous and straggling growth, managed entirely by local committees, are now being brought directly under Government supervision and control. Under the Technical Education Act of 1907, a central Technical College is being established in Brisbane, which will stand in the relation of a Technical University to the Colleges which exist in all the principal centres of the State. The Colleges are all established upon a uniform basis, working to the same syllabus, with the same examinations, and the departmental certificate is the recognised certificate. At least one head teacher of a State school is appointed to the committees, in order that the technical and primary school systems may be co-ordinated, and the best results thereby attained. The subjects on the syllabus are all liberally endowed by the State; the teachers of subsidised subjects must all be approved by the Minister, and only teachers of proved competency are allowed to be appointed. The apparatus and equipment is also carefully supervised to ensure its satisfactory character. The number of colleges is being steadily increased, and where the population is not sufficiently large to warrant the establishment of colleges the formation of technical classes is encouraged. A very fine School of Mines is in existence at Charters Towers. As opportunity has arisen, the syllabus has been extended to provide for the training of engine-drivers, boiler attendants, French polishers, upholsterers, milk and cream testers, etc. Chemical and electrical classes are included at several of the colleges; the Townsville College has an engineering class; the Rockhampton College includes mining, physics, chemistry, metallurgy, and assaying, and no effort is spared to bring the colleges into touch with the practical life of the people. In each district an effort is made to devote special attention to subjects which will prove of use in connection with the industries of the place. Thus, in agricultural centres, dairying and agricultural subjects are encouraged, in mineral fields mining is given prominence, and in the larger industrial centres subjects relating to the secondary industries are brought forward. At the State Railway Workshops, Ipswich, special facilities are offered to the apprentices to attend the Technical College, and the same is done at Mount Morgan, where the Mount Morgan Gold Mining Company pay 2s. 6d. per week in addition to the weekly wage to encourage attendance at the College. Where the erection of a new College is needed, the State contributes four-fifths of the cost of buildings and equipment, and the salaries of the teachers are paid by the State. In connection with the examinations, the services of the best available experts were secured; in some cases from beyond the State, and employers and employees everywhere are beginning to realise the value of the Technical Education system. The goal to which the Department directs its efforts is to so perfect a system, that Queensland will be able to train her own scientific agriculturalists, managers, engineers, assayers, electrical and other experts, and render it quite unnecessary for any of her young men to

seek the knowledge they require in other lands. The strong forward move which has been made in this direction within the last couple of years has already made itself felt, and the work is being pushed along with enthusiastic zeal.

For young folk who are compelled by force of circumstances to become bread winners, the State extends a sheltering hand, limiting by legislative enactment the number of hours which they shall work, the character of their employment, the amount of overtime that may be demanded of them, and safeguarding them in the matter of wage, etc. Children under the age of 13½ years are not allowed to be employed in factories without the issue of permits by the Factories and Shops Department. These permits are only granted in special cases, and the aim of the Department has been to discourage them as much as possible. All factories must register; they are regularly inspected, and severe penalties are provided for any breach of the law. Under the Factories and Shops Act Amendment Act of 1907, it is provided that not less than 5s. per week shall be paid in wages for the first year of employment, with an annual increase of not less than 2s. 6d. per week during each year or next succeeding 5 years, and service in one factory shall count in any other factory. No male young person and no female shall be employed continuously in a factory for more than 5 hours without an interval of at least half an hour for a meal. No such employee shall be employed for more than 48 hours in any one week, and the working hours shall not extend beyond 6 p.m. on 5 days and 1 p.m. on one day in each week. The hours worked shall not exceed 10 hours in any one day, and no male young person or female under 18 years of age shall be employed in a factory or in any factory work between the hours of 6 p.m. and 6 a.m., neither shall they be employed in a factory on Sundays. It may be pointed out that in its comprehensive scheme of caring for the child life of the State, the Government pays special attention to the children of indigent or vicious parents, and those who may from any cause be left unprovided for. The Infant Life Protection Act compels the registration of all nursing homes, and their inmates, which are regularly inspected and reported upon by Government officers. Orphanages and a reformatory school, all State institutions, also exist, the latter partaking something of the character of an agricultural school where the inmates are trained to become useful agriculturalists.

BIG FACTS FOR LITTLE FOLKS.

Queensland comprises the whole of the North-Eastern portion of the continent of Australia.

The area is 670,500 square miles, or 429,120,000 acres; population, 550,000.

The distance from North to South is 1,400 miles; from East to West, about 1,000 miles; coast-line, including indentations, approximately, 3,000 miles.

Captain James Cook first took possession of the territory for the British Crown on the 21st August, 1770.

Lieutenant Flinders entered Moreton Bay on the 16th July, 1799; Lientenant Oxley discovered the Brisbane River (where the State capital now stands) on the 2nd December, 1823.

The Darling Downs was discovered by Allan Cunningham in 1827, and Moreton Bay settlement (Brisbane) opened to settlers in 1846.

Queensland was declared a Sovereign and separate colony with its own Parliament and Constitution on the 10th December, 1859; Sir George Bowen was the first Governor.

The first Queensland Parliament was opened 29th May, 1860. The census showed 23,520 souls in the territory, irrespective of natives.

The Australian Commonwealth, comprising a federation of all the Australian States, including Queensland, came into existence on 1st January, 1901.

Queensland's principal industries are pastoral, mining, and agricultural.

The receipts of the State owned railways in 1906 were £1,663,336.

A total of 66,938,101 lbs. of wool, value £3,388,929, was exported in the same year.

Minerals exported in 1906 were valued at £4,198,647, and the butter, totalling 22,746,593 lbs., was worth £909,864.

184,377 tons of sugar grown in 1906 were worth £2,249,161.

Sheep in Queensland in 1906 numbered 14,886,438, and cattle 3,413,919.

Total area of Crown land selected in 1906, 3,190,257 acres.

The estimate of State revenue for the current year (1907-8), is £4,447,404, which shows every prospect of being exceeded.

The Queensland Government gives a free grant of 160 acres of country land to any applicant, the title being issued upon the completion of certain conditions of residence and improvements.

The exports for 1906 were £12,754,289, and imports £8,311,466.

Cotton was first shipped from Queensland in 1854. Coal was first discovered at Limestone (now Ipswich), on the 8th June, 1827.

Queensland contains the world's greatest gold mine at Mount Morgan, and the world's greatest copper field at Cloncurry.

The Fitzroy is the principal river in Central Queensland. Rockhampton, the second city of the State, is on its banks. The Fitzroy is known by that name for 180 miles, and as the Dawson for 232 miles, the whole draining a watershed of 55,603 square miles, approximately as big as England and Wales.

The Burdekin is the principal river in North Queensland, 425 miles in length, draining an area of 53,529 square miles.

The Brisbane, the principal river in South Queensland, is 210 miles long, draining an area of 5,300 square miles.

The rivers of Queensland, from south to north are the Logan, Brisbane and Pine (with outlet to Moreton Bay), Caboolture (Deception Bay), Mary and Burrum (Wide Bay), Burnett, Kolan and Elliott (Hervey Bay), Calliope and Boyne (Port Curtis), Fitzroy, which combines the Dee, Dawson, Mackenzie and Isaac Rivers

(Keppel Bay), Pioneer (Mackay), Don (Bowen), Burdekin, which receives the Bogie, Bowen, Belyando, Sutton, Cape, Campaspie, Basalt, Clarke, and Star Rivers (Upstart Bay), Ross (Cleveland Bay), Herbert (Lucinda Point), Tully (Kennedy Bay), Moresby (Mourilyan Harbour), Johnstone (Gladys Inlet), Russell and Mulgrave (Bramston Point), Barron (near Cairns), Mossman and Daintree (near Port Douglas), Bloomfield (Weary Bay), Endeavour (Cooktown), Normanby, North Kennedy, Saltwater, Annie and Stewart rivers (Princess Charlotte Bay), Lockhart (Lloyd's Bay), Pascoe (Weymouth Bay), Kennedy (Newcastle Bay).

The Queensland rivers emptying into the Gulf of Carpentaria are the Jardine, Ducie, Batavia, Pennefather, Archer, Lenedale, Leekin, Edward, Colman, Mitchell, Alice, Staaten, Gilbert, Norman, Bynoe, Flinders, Leichhardt and Albert. Interior rivers are the Macintyre, Condamine, Warrego, Nive, Ward, Langlo, Paroo, Bulloo and Wilson.



Outdoor Life in Queensland.



By Harry C. Perry.

SPORT! What glorious associations hover round the word; what joyous thrilling memories it brings, and how it seems to comprehend all that is most worth living for. It calls to us with the myriad voices of the field and of the bush, and of the bay and of the river, stirring the souls of men with a song of strong endeavour. It brings to us from cricket pitch and football field the voices of players striving for the mastery; we see the shining waters of bay and river over which shoot trim sailing craft, with the hum of sweet wind in the cordage; on quiet streams scullers bending noble bodies in rymthic motion. From a thousand points the calls of tennis, golf, polo, and lacrosse players rise in a chorus of delight. The Britisher everywhere knows the fierce joys of personal contest in athletic sports. the excitement of the chase and all those manifold sensations encompassed by the one word "sport," but nowhere in all the world are they enjoyed in greater variety or perfection than in Queensland.

Men who spend their lives striving for wealth and power will declare contemptuously that the young nation which is growing up in "Earth's mightiest Isle," devotes too much time to sport, but it is the money grabbers and not the athletes who have missed the secret of life. Sport is bringing to the young men of Queensland, a knowledge of their bodies, the advantage of physical development, and the folly of dissipation. They are learning that the careful living and the healthful exercise which secures athletic honours also enables them to win out in the battle of life. The clear head and steady nerve of the athlete is just as effective in the counting house, the factory, or on the farm, as on running track or football field, and success in sport has always proved a wonderful aid to success in business. And the week end hours spent in healthful sports, lend a sweetness to life, which can come in no other way. The association of young men in gymnasia, club rooms, and boat sheds, induces mutual respect, encourages discipline and self-restraint, and frequently leads to friend ships as tenacious as life itself. Queenslanders are proud of their sporting proclivities even as they are proud beyond measure of the noble State to which they belong.

There are three outstanding features of sport as it is understood, in the Queen State of the Commonwealth. First, there is the undoubted fact that almost every soul in the land can be claimed as a devotee of some one or other outdoor pastime. The delightful evenness of the climate, with its freedom from all extremes of heat or cold, and the manifold variety of the pleasures that offer, are no doubt largely responsible for this. In addition, there is the fact that the law calls for the observance of a weekly half-holiday in all business establishments, and in the larger centres of population, this is kept on the Saturday afternoon.

Under the Bank Holidays Act, too, nearly the whole of the statutory holidays are observed on the Monday following the due date, so that there are quite a number of occasions on which people can abandon business for sport from 1 p.m. on Saturday until 9 a.m. the following Tuesday. Another point that is most apparent is the high standard of Queensland sport. All the world over of course, there are sportsmen and sportsmen; there are men whose only claim to the ennobling title is that they are units in the gambling crowd that surrounds the race tracks, or that they follow the athletic games for the gain that may accrue; but these are not the sportsmen upon which Queensland prides itself. Apart from these, there is the great encompassing throng that participates in the various pastimes from downright love of them; men who, if they do not compete for the virtual crown of wild olive, are yet content to receive as their reward trophies of modest value, and of a character in accord with strict amateur rules. Leading journals and press writers of the State, to their credit be it said, place amateur sport absolutely in the fore-front, and spare no effort to encourage and keep it pure. Prominent public and business men contribute liberally to the various clubs, both in cash and in the form of trophies, the value of prizes competed for each year running into very large sums. The third great feature is found in the wonderful facilities for sport which abound throughout the State. Successive Governments have always been most liberal with grants of land for recreation purposes, the result being that there is scarcely a township or settlement, however small, which has not its sports ground, duly vested in trustees, for the benefit of the youth of the district. If there are any who do not possess such a ground, it is because the extent of waste land around has rendered it is so far unnecessary. But they have practically only to ask to receive. Public men in Queensland have always shown a keen smpathy with the sports of the people, and in a State that measures its Crown lands by the million of acres, it is rare, if ever, that a request for a sports reserve cannot be granted.

The bays and rivers which abound from end to end of Queensland's 3,000 miles of coast line (including indentations), also provide magnificent sporting resorts for the people. Long and well protected river reaches seemed destined by nature for the training of rowers and scullers, and men are to be seen plying their oars upon these waters, who possess all the power and stamina, if they lack something of the skill and finish of the world's best. Each week end and holiday the bays are alive with sailing craft of all sorts and sizes, whilst handsome and speedy motor launches are becoming every month more numerous. Queenslanders have inherited to the full that love of salt water which has always characterised the parent stock. A number of young men who have been recruited for the Australian Naval Squadron, have shown themselves such proficient seamen as to delight the hearts of the authorities, and to earn the warm encomiums of successive naval commandants. This taste for the sea is encouraged by fixtures promoted by the many sailing organisations, such as the Queensland Yacht Club, the Flying Squadron, Brisbane Dingey Club, and other organisations with headquarters at Brisbane, Maryborough, Rockhampton, Townsville, and in fact every township on the coast. No finer sight can be witnessed than is provided at the numerous regattas and sailing races which take place throughout

the glorious summer. Humpybong, Sandgate, Southport, and Wynnum in turn draw their crowds from Queensland's capital, thousands travelling by rail, road, and river, to these delightful resorts for the purpose of witnessing or taking part in the great reviews of Queensland's sailing organisations. Such spectacles as these have also encouraged the development of a great army of amateur photographers, who are beginning to turn from the pictured scenes of other lands, and to devote their attention to collecting reproductions of the more entrancing beauties with which nature has surrounded them. People who live in the less genial clime of Great Britain cannot well conceive what a regatta at the seaside of Queensland means. Blue heavens, flecked with white clouds, the shining waters, dotted over with graceful craft, the glittering gold of the beaches, the well-dressed happy crowds, the rich green of the littoral, all combine to make a picture that must be seen to be appreciated. Let residents of the Old World call to mind all they know or have read of the glories of the Mediterranean, taking away of course the picturesque denizens of its shores, and adding instead a comparative handful of people of their own race; let them add then a deeper blue to sky and water, and a brighter gold to sun and sand; then over all these must blow cooler and sweeter breezes, and they will have something like a Queensland scene, say at Emu Park, Rockhampton, Pialba, Maryborough, or any other of the scores of places that dot the Queensland coastline. Essex Evans, the sweet singer of Queensland, puts it thus:—

"Bright skies of summer o'er the deep,
And soft salt air along the land,
The blue wave lisping in its sleep,
Sinks gently on the yellow sand;
And grey-winged seagulls slowly sweep
O'er scattered bush and white-limbed tree,
Where the red cliffs like bastions stand
To front the salves of the sea;
Now lulled by its own melody."

Swimming, as may be supposed, is one of the most popular pastimes with both sexes in Queensland. Surf bathing is indulged in very largely at all the seaside resorts, and at many of them there are enclosed baths for those who may not care to face the more exhilarating delights of the open beaches. Townships situated upon the rivers, such as Brisbane, Ipswich, Rockhampton, and others have their properly constructed baths, where the natatorial art can be indulged in under the most pleasant conditions. Some of the inland towns, such as Toowoomba, are also going in for swimming basins, and there are indications that even on the far western plains, the artesian waters will shortly be utilised for a similar purpose. Swimming clubs exist wherever these facilities are to be found, all of them strictly amateur organisations, controlled by the Amateur Swimming Association of Queensland. During the last few years, the fair sex have taken to the pastime with great avidity, and ladies swimming clubs have become so numerous that a Ladies' Swimming Association has been formed to arrange carnivals, etc. All clubs hold weekly meetings throughout the summer, at which swimming matches over various distances are ar-



OPENING A SUBURBAN BOWLING GREEN, TOOWONG (BRISBANE).

ranged. Then each club holds an annual carnival at which they decide their own championships. The Swimming Association conducts the State championships, and Commonwealth championships are decided in Brisbane from time to time, in turn with the capitals of the other States. In these events the Queensland representatives have proved themselves the equal, and at times the superiors of the swimmers from all Australasia.

Rowing has long been prominent in the list of Queensland pastimes. Upon the Brisbane, Burnett, Fitzroy, and Johnstone rivers there are reaches which offer unexcelled facilities for boat pulling. The best of these, and one which is declared by good judges to be unsurpassed in the world, is on the Brisbane River, from Queensport to the Hamilton, a distance of three miles, with but one obtuse angle in the whole stretch of water. Persons riding or driving along the Ascot road on the north bank of the river can see a boat race throughout the greater part of the distance. It is but a short tram ride from the city to this point, and on the occasion of the annual regattas the people pile up along the river banks in thousands. In some of the interstate championships as many as six states have been represented. Upon this course too, there have been some noted sculling matches, the contestants including such world-renowned men as Searle, Beach, Hanlon and others. Amateur rowing events were witnessed on Queensland rivers before the days of responsible Government, and as far back as the sixties, they had attained considerable importance in the eyes of sportsmen, no less than four clubs existing at that time in Brisbane alone. Others followed, and to-day there are strong rowing organisations at Brisbane, Bundaberg, Rockhampton, and Maryborough. In the year 1889, these clubs were gathered together under the government of the Queensland Rowing Association, which has since maintained the sport at a high standard of purity and excellence. The climatic conditions of the State, lend themselves admirably to the practice of this sport. In the summer the daylight last until 7 p.m., and even in the winter darkness does not fall until 6 p.m. Provided that the day's work ends at 4.30 or 5 p.m., it will be seen there is ample time for a pipe opener, a tub, and a rub down before the evening meal.

Cricket is as much a national game in Queensland as in any part of the Empire, everyone playing the game more or less. The sport is governed by the Queensland Cricket Association, and the players under its control are divided into three grades, in addition to which there are innumerable school and junior clubs scattered everywhere throughout the State. The quality of the play is rapidly improving, the Association having latterly awakened to the necessity of securing the services of professional coaches. The cricketers of the metropolis have splendid facilities for play at the Brisbane Cricket Ground, at the Exhibition Grounds, Bowen Park, and on numerous practice wickets in Queen's Park, and the suburban reserves. Though the average quality of the play is undoubtedly high, Queenslanders have yet to distinguish themselves in international cricket. The fact is that in this as in other branches of sport, they do not specialise to the same extent as players in other lands. For the most part they are good all round, indulging in every pastime that their inclination and the unbounded opportunities offer, and thereby missing the super-

excellence in any one branch of athletics which can only be secured by the specialist. Very much the same can be said of football. Immediately the summer is over and cricket bats are laid aside, the football clubs spring into life, organised for the most part by the same young men. They play cricket right up to the last Saturday of the season, and with scarcely a pause to glance at the averages, they throw aside the flannels for the jersey, and the next week they are dribbling and kicking goals with undiminished vigour. Rugby is the pre-eminent game in the football field, but British Association has many followers, and that fast, absorbing game, known as Australian football is also growing rapidly in popularity. The Queensland Rugby Union has a ground of its own at Bowen Park, and there are rugby grounds in all the principal centres of population. Queensland rugby players have on a number of occasions proved victors in the interstate contests which are held annually. The Canadian game of lacrosse obtained a footing in the State some years ago, and a recent visit of a team of lacrosseurs from the home of the game gave it a considerable impetus. The visitors were exceedingly complimentary in their comments upon the play of the Queenslanders, who promise to lead the continent on this particular pastime. Bowls is another game that has established itself a firm favourite, particularly in the metropolis, and the number of clubs continues to increase, until it appears that in a very little while every suburb will have its bowling green. These are delightfully situated on the river banks or in the parks, and they provide splendid opportunity for business men and public men to take open air exercise.

The Queensland Amateur Athletic Association is a powerful organisation, controlling close upon thirty affiliated clubs. The sport of amateur running, jumping, and field games has made remarkable strides in the last ten years or so, every club having from 50 to 100 members. Some of these are Gordon clubs, organised in connection with the churches; others are district organisations, and nearly all have club rooms where they meet weekly for gymnastics, boxing, paper chases, and handicap races. Club championships are held every year, the Association conducts annual State championships, and every two years the Australasian championships are decided. The capital of each State is selected in rotation as the venue for the championships. Brisbane had her turn in 1899, and it will come again in 1909. In other years her representatives have journeyed to New South Wales, Victoria, New Zealand, and Tasmania, and on every occasion they have brought back laurels with them. In 1899 they tied with New South Wales for second place in the contest for the championship banner, no less than four Australasian championships being won by Queenslanders. Strong clubs are in existence in Toowoomba, Maryborough, Townsville, and other towns outside the metropolis. Amateur cycling, under the control of the Queensland Cyclists' Union, is a favourable sport, in fact the number of people who cycle either for business or pleasure is remarkably big. This is especially the case in towns that have not yet secured the advantages of street tramways. Queensland is the home of road racing in Australia, each of the clubs promoting events for valuable prizes every week on the roads outside the city. In amateur cycling, the State has more than held its own, her riders pointing with pride to a long list of successes in Australasian championships. Tennis counts its votaries by

the thousand throughout the State. Most of the better class homes in town and in the country have tennis courts in the grounds, and tennis clubs have been formed in all the centres of population. In Brisbane, there is a Tennis Association with beautiful grounds, of which it possesses the freehold, situated at Auchenflower, on the immediate boundary of the city. The mention of tennis serves to introduce the fair sportswomen of the State, and they are legion. The girls of Queensland are ardent followers of, and participants in sport. Cricket, football, sailing, rowing, athletics, etc., bring them forth in beauteous thousands as spectators, and at tennis, boating, swimming, and croquet, they are enthusiastic adepts. Quite a number of croquet clubs are in existence with grounds and club houses.

Mention of the royal and ancient game of golf must not be overlooked. It came to Queensland years ago, born upon breezes from old Scottish moorlands, sweet with the scent of heather, and the sons of the Northland were not long in adding it to the list of glorious outdoor pastimes which have found such a congenial home in Queensland. The headquarters of the game are at Yeerongpilly, a railway suburb within fifteen minutes ride of the capital city. Here the Queensland Golf Club has purchased the freehold of 90 odd acres of land, splendidly adapted for the purpose. Upon it they have erected a commodious club house. Something approaching £3,000 has already been spent on the property, which members declare will yet become the St. Andrews of the Commonwealth. There are other golf centres in various ts. Quite a number of ladies are included in the list of active players. Returning a moment to the athletic games, it should be mentioned that apart from the clubs controlled by the Athletic Association, there is also in Brisbane an organisation known as the Brisbane Gymnasium and Amateur Boxing Association. Their splendidly appointed building is erected upon an area of land granted for the purpose by the Crown, and the gymnasium and appointments are the property of the members. For a sum of 10s. 6d. per quarter members have all the advantages of the most modern athletic equipment, an instructor in gymnastic and other exercises, etc. It is here that the amateur boxing championships of the State are conducted each year, in the presence of some of the most prominent people, including on many occasions the vice-regal representatives. Motoring is growing rapidly into popularity, a number of high-class cars are being regularly imported from England, France and Canada. In a young country, shooting is naturally a pastime extensively followed everywhere. In the rural districts every man possesses a rifle or shot gun (or both), and every town has its gun club. Rifle clubs exist throughout Queensland, controlled by separate associations with headquarters at Brisbane, Rockhampton, and Townsville, and all are liberally assisted by the Commonwealth Defence Department. Horse racing is known by all the world to be a passion with Australians, and Queenslanders do not differ from their brothers in the other States. Every city and town can boast of well-appointed courses, where races are run for handsome prizes almost weekly. In the bush, and "out back," one of the first evidences of settlement is found in the marking out of a course, on a plain if possible, or if not, then a track is cleared through the timber. The great annual race meeting of the "Gum Tree Jockey Club" is then arranged, and everything in the district which possesses

four legs is duly raced. If it is true that racing is the sport of kings, then every country settler in the State of Queensland is a king. As " Banjo " Paterson, another Australian poet says :—

" Why everything races, no matter
Whatever its method may be,
The water fowl hold a regatta,
The 'possums run heats up a tree ;
The emus are constantly sprinting
A handicap out on the plain,
It seems like all nature was hinting ;
'Tis time to be at it again."

And now just a word in conclusion as to the physical manhood and womanhood of this young nation. Interested persons for reasons which need not be entered into here, have talked of climatic disadvantages and race decadence in a manner that would be ridiculous if it were not criminal. There are young men and women in Queensland to-day whose progenitors for three generations back have been born in this favoured land, and each generation has been an improvement upon the one before. The country is evolving a type, tall, stately, and broad shouldered, with the fearless eye and the nobility of countenance, which is born only of freedom and unlimited opportunity for education, physical development, and worldly prosperity. Ask the British soldiers what they thought of the Queenslanders who fought beside them in South Africa, or recall to mind the men from Queensland who journeyed to London to take part in the ceremonies at the coronation of our King. And these men left behind them girls who were fit mates for them in all respects. The Queensland girl will yet be famed for her easy graceful carriage, her sturdy limbs, her well poised head, bright eyes and happy face, the proud daughter of a land that is loved by all who know it.



DAIRY COWS WATERING ON THE FERTILE DARLING DOWNS.

QUEENSLAND'S



Agricultural Progress.

As Revealed in the latest Departmental Reports.

INTERESTING FACTS AND FIGURES.

REVIEWED BY CHAS. E. TAYLOR.

AGRICULTURAL DEPARTMENT.

THE annual report of the Department of Agriculture and Stock for the year ended June 30th, 1907, states:—

The year has been very favourable for agricultural and pastoral operations, excepting for grain crops, which in some districts suffered severely from excessive moisture and humidity at a time when the crops were approaching maturity. In other respects the returns have been good, and the prices obtained have been profitable.

The influx of experienced farmers and their families from the Southern States and elsewhere is having a marked effect upon the agronomy of the districts in which they have settled, and the gain to the farming community through their advent will be considerable. On the other hand, skilled and reliable farm labour has been scarce, particularly during harvest time, being practically unobtainable for general agriculture as separate from the sugar industry.

In pastoral matters the year has been one of gain in the increase of stock, and of profit in the markets. Grass and water have been plentiful, and the good seasons that have been experienced since the drought have enabled the stock to multiply and resume the normal annual increase of the years preceding that time. Both sheep and horned stock have multiplied, and the lambing was excellent.

The sales of wool have been encouraging, and the quality of that offered for sale has much improved.

Dairying has continued to expand in a very satisfactory manner, and our exports, owing to strict supervision at the port of export, are increasing in favour in the London market. Interest in improving the dairy herds has been shown by the number of first-class dairy cattle that have been imported. In tropical agriculture there is evidence that farmers are inclined to cultivate main crops other than maize and sugar, which have so long dominated the agronomy of those regions. Plantings of rubber have been made, which, though small at present, indicate a commence-

ment, and it is hoped will be the forerunners of Queensland rubber in the market. The success attending the experiments in cigar tobacco on the Northern coast, and the good prices realised for the product, have encouraged several farmers at Bowen and Cardwell to undertake the cultivation of this plant, and it is but a matter of time before the area under cigar tobacco in this State will be considerable.

Agriculture is so extensive in its application and so variable in its circumstances, including as it does all relations of man with the soil, that it is impossible to include every department of so wide a subject within the pages of a report, and so much of the work of the Department during the year must of necessity be omitted.

Two great experiments of considerable value have been commenced during the year—the conservation of fodder by means of silos, and the system of cultivation known as the dry-soil system.

The classification of making silage as an experiment can be explained by the desire of the Department to find out the material most suited to this climate and to the pockets of the man without much capital. Silos of wood, brick, stone, and cement are not new, but new materials are constantly placed upon the market, and it was thought that from some of these a cheaper, and, at the same time, as reliable as the well known but more expensive materials may be found.

It may be that the experiments entered upon will turn out failures, and if so they can be classed as departmental successes, because, by demonstrating the failures, many men will be saved expenses that they might otherwise be induced to incur.

The experiments in dry soil cultivation are for the present being carried on at the State Farm, Roma, but it will not be until 1908 that anything authorative can be said of the value of them, and not even then unless a dry season is experienced in the Maranoa district. Arrangements had been made by this Department whereby these experiments should have been commenced at the time of starting the Roma farm, but, owing to the delay on the part of the manufacturers in America, the implement ordered was not ready for export before the sailing of the s.s. "Haversham Grange," which was burned at sea and the implement was lost. A second cultivator was then ordered, but did not arrive until after the grain crop had been planted, and even then the axle was missing on arrival, and a new axle had to be made in Brisbane.

The cultivation of native and exotic grasses likely to be of service to the farmers has obtained attention, and arrangements have been made for the cultivation and propagation of such as are selected upon a business scale at the College and at the State farm, Hermitage. For several years small plots have been cultivated at both places, but from a practical point of view the subject has been but played with.

The meatworks are in operation, and though not yet working to their full capacity, the supply of stock has so far recovered from the effects of the drought that the desired state of affairs is in sight. Contracts have been maintained, and new contracts have been secured.

At the instance of the authorities at the War Office in the United Kingdom, Major Long, D.S.O., has visited the meat factories now working, and has reported thereon in a manner which is understood to be entirely satisfactory to the trade generally. He was followed closely by Major Gallagher, of the United States Army,

who came here from the Philippines upon a similar mission, and to inquire into other subjects with which trade could be done if supplies are forthcoming.

The application of the Slaughtering Act throughout the State has resulted in a great improvement in the methods of slaughtering and in the kind of meat supplied for consumption The quiet and persistent efforts of the inspectors in Brisbane and other large centres has resulted in the renovation of slaughter yards and the establishment of a system that is in all respects adapted to the utmost requirements of the trade.

AGRICULTURAL PROGRESS.

It may be interesting at this juncture to inquire into the progress of agricultural and pastoral pursuits since the establishment of Queensland as a separate colony, but in so doing it must be remembered that the conditions have altered considerably. Then, the abundance and cheapness of virgin soil, with the desire to hold a large area of land, added to the primitive means of cultivation then available, makes a comparison with present day opportunities in a certain degree unfair, but, after allowing all possible latitude in that respect, it must, I think, be admitted that during the forty-seven years of existence progress has been greater than what might be considered to be normal.

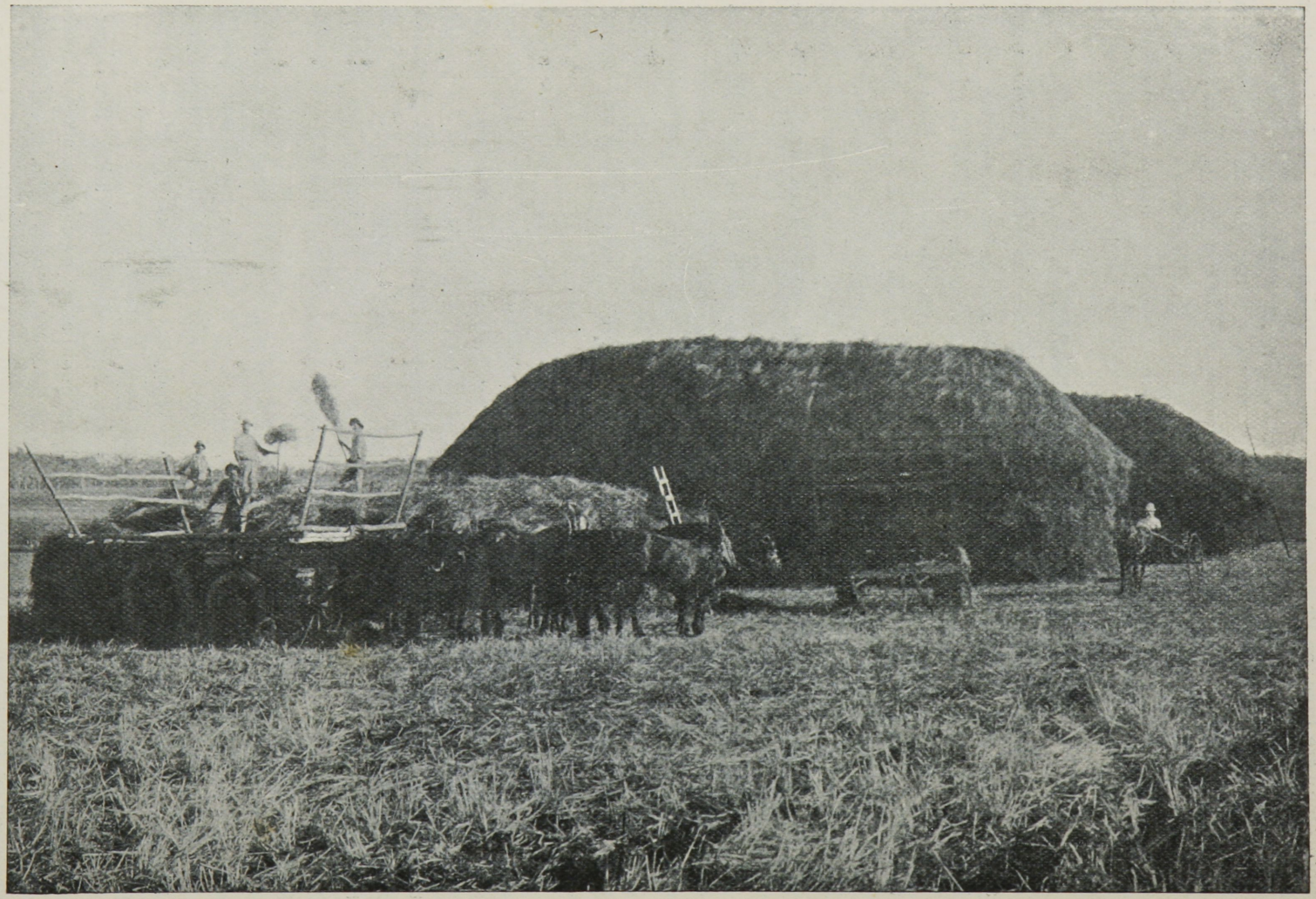
In 1860 machinery and labour-saving implements were but a small factor in rural pursuits, now they take the primary position, and there are prophets that foreshadow many advances that are yet to be made. Invention and production has abolished much of the muscular effort and drudgery of former generations, with the results that rural pursuits are now followed with more physical comfort and mental culture.

All the other industries of the State, and, indeed, the existence of it, depend so largely upon the agricultural and pastoral community, that investigation and experiment towards improvement should be the first care of the people. On the 31st December, 1860, the population of Queensland was estimated to be 28,056, the total acreage of cultivation to be 3,353, and the stock numbered—of horses, 23,504; of cattle, 432,890; of sheep, 3,449,350; and of pigs, 7,147. In 1906 the population was estimated at 535,110, the area under cultivation was 598,777 acres, and the stock numbered—of horses, 452,916; of cattle, 3,413,919; of sheep, 14,886,438; and of pigs, 138,282.

In 1860 there was .12 of an acre of cutlivated land for each head of population as against 1.12 acres in 1906. Put in another way, it will be found that though the population has increased 19 times, the area under cultivation (notwithstanding drought and the other difficulties to be overcome) has multiplied 179 times, horses 19 times, cattle 8 times, sheep 4 times, and pigs 19 times.

It was in 1864, when there were 12,000 acres under cultivation, that sugar-cane statistics were first collected, the total area for that year being 93 acres 2 roods 24 perches, of which Brisbane was credited with 80 acres 3 roods (Hon. Louis Hope's plantation at Ormiston). The area for 1906 stood at 133,284 acres.

Dairying, again, is another instance of progress. It was not until 1899 that the dairying industry had arrived at a stage of importance to be recognised by the



STACKING HAY IN THE CENTRAL DISTRICT.

statisticians, the output of hand-made butter for that year (for separators were not in use in Queensland) was approximately 92 tons, and, in addition, 183 tons, to the value of £35,041, were imported. In 1906, besides supplying our own wants, butter was exported to the value of £582,265.

The first appearance of our great meat trade in the statistics was in 1862, when bacon, hams, and beef were exported to the value of £510, an item that had expanded in 1906 to £569,766.

Wool, of which, in 1860, we exported to the value of £444,188, appears in the export statistics for 1906 to the value of £3,389,048.

TRADE WITH ASIA.

During 1906, Queensland exported the following agricultural products to Hongkong, India, the Philippines, Japan, and China, the trade with which countries is capable of great development:—

			Value.
			£
Cattle	No.	117	664
Horses	No.	2,491	35,128
Bones and Hoofs	Cwt.	4,373	1,849
Butter	lb.	263,500	11,087
Cheese	lb.	29,453	770
Glue pieces and sinews	Cwt.	853	829
Refined animal fats	lb.	4,826	1,240
Manures	Cwt.	5,431	1,468
Bacon and hams	lb.	147,568	6,150
Meat	lb	11,127,792	127,295
Tallow	Cwt.	15,932	18,902
Wool, scoured	lb.	308,509	24,061

Only the principal items are given above.

AGRICULTURAL EDUCATION.

Though the consummation of the proposal made in former reports for agricultural classes of greater or lesser duration in agricultural districts has not yet been attained, much progress has been made during the year in the direction aimed at. Arrangements have been made whereby the officers of the Agricultural Department will visit the schools where such instruction is carried on, when they happen to be in the district, and give advice and instruction, so far as time permits. In addition, the Department purchases such seeds and tools as may be needed. The course at the Agricultural College for teachers during the winter recess has been continued, and from the number of applications from schoolmasters of different degrees for permission to be included, it is evident that the instruction given and received is considered to be of some value. The system initiated at the State farm, Hermitage, under which apprentices for three years are taught the several branches of general farming, has been applied, though in a slightly altered form, to the State farm at Biggenden. There improvers instead of apprentices are taken on. These lads, under the tuition of the manager, are instructed thoroughly in the work carried on

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there, and for their services are found in board and lodging, and receive payment at the rate of 2s. 6d. per week for the first six months, 5s. per week for the second six months, 7s. 6d. for the third period of similar duration, and 10s. per week up to the completion of the second year, after which their service as improvers terminates. The opportunity thus available for the lads in the Wide Bay district will, it is hoped, be valued, for at this farm they will be enabled to learn as much as, if not more than, they would on a private farm, and under much better conditions.

The extension of the system to the tropical part of the State will, it is hoped, be a portion of the policy of the Department during the coming year, for it is manifestly right to encourage in every way possible a knowledge of all kinds of tropical industries, and, under present conditions, the road is difficult to travel. The occupation of the rural portion of the agricultural community in the tropics hitherto may be divided generally into two divisions—the cultivation of sugar cane and the cultivation of bananas and oranges. For the subsidiary crops that are of use and worth, many of which under the protection of the federal tariff could be cultivated with every hope of a profitable return, there is little or no interest among the older generations, and, to inculcate that interest, the younger or rising generation should be educated.



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